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MASTER

CHIEF FINANCIAL OFFICER'S TASK FORCE ON

Title: Gasoline

RATIONING preimplementation FEASIBILITY, COST & SCHEDULE

FINAL REPORT

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Contract #DE-AC01-80-AD-14013

American Management Systems, Inc.

MGW

The following pages are an exact representation of what is in the original document folder.

3/5/80

MEMORANDUM TO: Chief Financial Officer

FROM: CFO Gasoline Rationing Task Force

SUBJECT: GASOLINE RATIONING PREIMPLEMENTATION FEASIBILITY, COST, AND SCHEDULE

The purpose of this memorandum is to report our realistic assessment of the feasibility, cost, and time frame for bringing a rationing program to 90-day readiness. Underlying this assessment are several basic aspects of the nature of the rationing plan:

- First, the rationing plan does not directly allot gasoline to end users. Instead, it allots rights (coupons) to purchase scarce gasoline at a controlled price. Because vehicle owners can sell these rights on a ration rights market, the coupons are a new form of money. Thus, rationing is effectively an income distribution program.

- Second, the system designed to distribute and circulate this "currency" should have all the controls you would expect of any currency distribution system. Yet, any rationing program implemented in one year or less will have potentials for error and fraud that would be considered intolerable in a banking system. We are concerned that previous high level reviewers have not focused on these serious problems of accountability.

- Third, previous versions of the plan were designed to be simpler and cheaper to implement and administer than the present plan. More rigid in their rules for alloting ration coupons, they relied on the ration rights market to redistribute coupons and smooth over inequities or hardships. As more and more priority groups have been identified and reliance on the ration rights market mechanism has diminished, the present plan may be more equitable in its initial distribution of coupons, but it is also much more cumbersome and complex. In fact, the plan is much more complex and difficult to implement than is perceived by the public. It would be at least as large an undertaking as a major income transfer program like the food stamp program.

- Fourth, the plan is designed to be used only for a short period in the event of a severe gasoline shortfall. It is not designed as a long range mechanism to force conservation of gasoline or to reduce oil imports.

- Finally, the plan that has been recommended to the President and will be sent to the Congress is simply a general enabling document. It consists of a set of allotment rules, a conceptual design of the system, and many detailed feasibility studies of various alternatives. However, this falls far short of an operational plan. A number of policy and operational issues (e.g., how rationing would be terminated) still need to be resolved. These issues will have to be resolved, largely by rulemaking, during preimplementation.

The plan has been changed in several respects in response to comments from the Congress, the general public and the ECC, since the previous version was rejected by the Congress in May, 1979. Three changes in particular impact the preimplementation process:

- The range of entities accorded status as priority firms has increased to cover such groups as telecommunications firms and "for-hire" delivery firms.

- All firms (not just priority users) are alloted rights for a percentage of their historical gasoline usage. Since firms use their vehicles more intensively than private individuals, they will have to receive supplemental allotments in addition to their vehicle allotments. To be able to grant supplemental allotments at the start of rationing, DOE currently plans to preregister firms during preimplementation.

- States have more influence on the division of the total state supply between state reserves and vehicle allotments.

Major Problem Areas

Attachment I describes the rationing plan, and contains a chart depicting the interaction of the principal components. The rationing process starts when checks for coupons are sent to owners of registered vehicles. The biggest single problem area appears to be delivering these checks into the hands of the vehicle registrants who are entitled to them, and no one else.

To prepare these checks, the government will have to rely on information originating from state motor vehicle files, which are not designed to meet the specific needs of a rationing program. Although all the necessary data are present, the accuracy required for state vehicle registration falls far short of the standards one might expect for a system distributing what are, literally, government checks. The best available estimates indicate that fifteen to twenty million vehicle owners would not receive checks, and another ten to fifteen million people would receive checks to which they were not entitled.

Partial solutions to these problems would indicate reliance on a single private company specializing in vehicle registrations to use its own files (which are based on the state vehicle files) to build and maintain a National Vehicle Registration File (NVRF). The Federal government would then fund improvements in state vehicle registration systems and procedures to produce permanent improvements in NVRF data, with the first significant improvement being realized towards the end of two years. We would also fund a one-time clean-up of these files in case rationing had to be implemented in less than two years.

The limit of three cars per household would be very difficult to define, let alone enforce. It would be desirable to downplay the three-car-per-household limit, realizing that enforcement will be costly and error-prone, even if a legally acceptable definition of a household is developed.

The second major problem area arises because of the various banking systems required by rationing. Because coupons are worth money, they cannot be sent directly through the mail. Instead, checks are mailed to vehicle owners and firms who "cash" them for coupons at coupon issuance points.1/ A second banking operation deals with redemption accounts. These are accounts maintained by gasoline retailers and suppliers in which they "deposit" coupons they have received in exchange for gasoline, which are then cancelled. Retailers must write redemption checks to their suppliers in order to have their inventories replenished. Redemption rights pass up the supply chain, and are eventually cleared by DOE.

The major problem associated with these banking systems is that they provide many opportunities for fraud and abuse on top of the counterfeiting which one could possibly expect. The five principal fraud problems we now foresee, and proposed measures to mitigate them, are:

1. Allegations of non-receipt by people who in fact received their checks. Because of the short time frame of each ration period (three months), a blanket issuance of replacement checks to

1/ Feasibility studies have indicated that banks and other coupon issuance points such as post offices will be able to handle the additional burdens placed on them by cashing approximately 600 million ration checks per year.

people claiming non-receipt would be required. The people who actually received their checks could fraudulently obtain twice as many coupons as they are entitled to.

PROPOSED COUNTERMEASURE: Labor-intensive follow-up and prosecution of abuses flagged by the check reconciliation process.

2. People who received checks to which they were not entitled cash them anyway.

PROPOSED COUNTERMEASURE: Same as above.

3. Gasoline station owners do not cancel coupons, but instead resell them on the ration rights market. The profit from selling a five gallon coupon is considerably higher than from selling five gallons of gasoline. This problem has been highlighted in our conversations with the Federal Reserve Board and the Department of Agriculture, who have revealed that even cancelled food stamps have a black market value of 50 cents on the dollar.

PROPOSED COUNTERMEASURE: The strongest possible audit and enforcement given the limited availability of resources.

4. Gasoline station owners falsify deposits of cancelled coupons.

PROPOSED COUNTERMEASURE: A relatively high level of verification of deposits.

5. Business and priority users report incorrect base period data during the preregistration effort.

PROPOSED SOLUTION: The computer system will flag inconsistencies for follow-up by mail-in audits of backup data.

Preimplementation Costs

The November 1979 supplemental budget request split the scope of rationing preimplementation into sixteen work packages. Of the high cost work packages, estimates for management information systems (including check and coupon clearing) and for the preimplementation of State and local roles have not significantly changed. Coupon production costs have increased significantly because of the new requirement for larger serialized coupons. Other notable cost increases result from: (1) money being given to the state motor vehicle departments to clean up their files and improve their systems and procedures; (2) the requirement that, in order for firms to be eligible for supplemental allotments at the beginning of rationing, they must preregister their historical usage data during preimplementation, rather than during the 90-day mobilization period; (3) reassessment of program management costs, with a realization that DOE will need a large rationing project office and a systems integration contractor; (4) the addition of a work package to study the feasibility of longer range, high technology rationing program alternatives; and (5) the addition of a management reserve of $20 million.

Attachment II shows a comparison of the November 1979 supplemental budget estimates with the cost estimates developed by the task force. Attachment III gives a detailed description of the costs associated with each work package.

Management of the Preimplementation Effort

The task force has recommended that a separate, independent office bg set up to manage the preimplementation effort. Attachment IV describes the proposed organization of the office. It is essential that the Director of the office be knowledgable both in the areas of managing the implementation of large programs and in the systems development. It is our recommendation that the Director of the project office report directly to either the Deputy Secretary or the Chief Financial Officer.

Because of the technical expertise required during preimplementation, and the relatively short time frame for preimplementation (twelve months exclusive of start-up time), much of the work should be performed by contractors. In addition, a Systems Integration Contractor should be hired to coordinate those work packages which are largely systems or operation oriented. The degree of contracting could potentially result in a long start-up procurement period before preimplementation work could begin. In order to shorten this time frame, DOE must rely on sole-source procurements and expedited contracting procedures wherever possible, as discussed in Attachment V.

A well designed public information campaign during both preimplementation and operations will be key in inspiring public cooperation without also inspiring public panic. Attachment VI describes the role of public information in more detail.

Finally, the time period between now and the approval of the rationing plan and a supplemental budget request by the Congress should be put to productive use, forming a core staff in the Rationing Project Office. They should, with the use of some consulting support, resolve outstanding design issues and develop a detailed preimplementation plan. Attachment VII describes in detail a number of key steps which should be taken over the next few months.

Attachment VIII contains a list of participants on the CFO Gasoline Rationing Task Force.

ATTACHMENT I

Summary Description of the Rationing Program

Historical Background

In December 1973, following the Arab oil embargo, a task force was assembled in the Federal Energy Office to develop a rationing plan. That task force was disbanded in April 1974 due to the end of the embargo. It did not complete its efforts. Consequently, the Federal Energy Administration (FEA) brought together another task force from February through May 1974, to complete the planning work.

In 1975, Congress passed the Energy Policy and Conservation Act (EPCA), calling on the Administration to develop a plan for rationing gasoline and diesel fuel under certain broad guidelines. Therefore, a new plan was developed in FEA during 1976 to comply with the requirements of EPCA. This plan was submitted to Congress in January of 1977, but was withdrawn by the Carter Administration shortly after taking office. A new plan was developed, building on the earlier plans, and submitted to the Congress on March 1, 1979. After two amendments were added, the plan was approved by the Senate but rejected by the House.

In fall 1979, Congress passed the Emergency Energy Conservation Act (EECA) which required the Administration to submit another rationing plan, and laid down certain conditions the plan must meet. EECA also modified the procedures by which the plan would be initially approved by Congress, and later, if necessary, put into operation. The 1979 plan was modified to meet the requirements of EECA, and is ready to be submitted to Congress.

Summary of Plan Operation

Under the standby rationing plan, DOE would allot "ration rights" (rights to purchase gasoline) to owners of registered vehicles. The size of the vehicle allotments would vary by state -- allotments in states with high historical per-vehicle consumption would be larger than allotments in states with low per-vehicle consumption. Businesses would receive supplemental allotments to bring them up to a percentage of their historical usage. Priority firms (e.g., farms, emergency services) would also receive supplemental allotments, but for a higher percentage of historical usage than for businesses.

DOE would establish a National Vehicle Registration File (NVRF) containing information on all registered vehicles in the U.S. Once each quarter, DOE would use the NVRF to mail out ration "checks" to all vehicle registrants, allotting them a certain amount of ration rights. These checks would then be "cashed" at Coupon Issuance Points (CIPs), where the bearer would receive ration coupons to be used at gasoline stations. Larger users of gasoline could deposit their allotment checks in "ration rights accounts" (like checking accounts) at ration banks.

In order to replenish their gasoline supplies, retailers would have to present their suppliers with cancelled coupons, or checks written against "redemption accounts" in which cancelled coupons and checks had been deposited. These redemption rights would pass back up the supply chain, eventually being cleared by DOE.

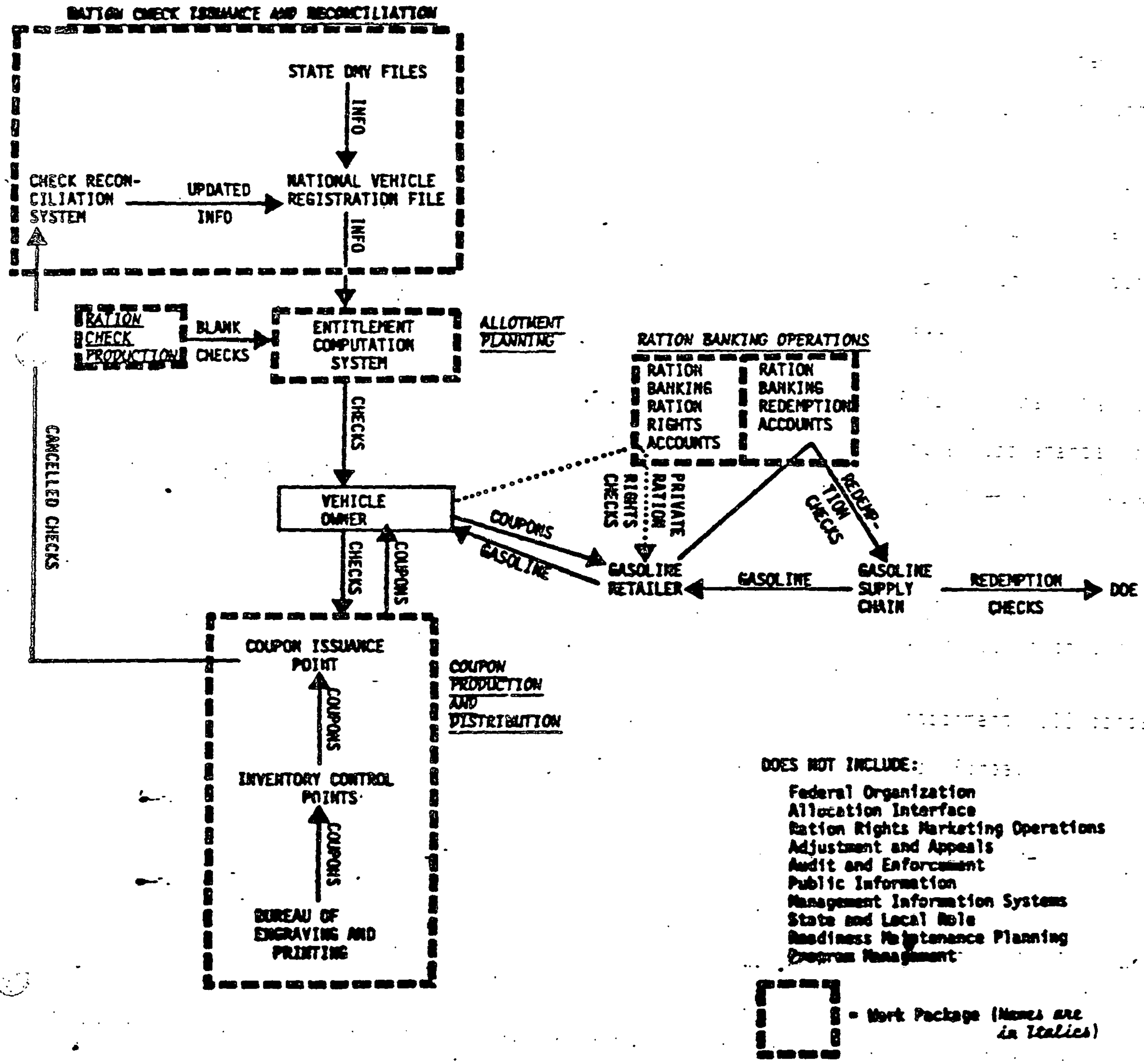
Coupons or checks would be freely exchangeable in a ration rights market.

A certain percentage of the gasoline supply would be set aside in a National Ration Reserve for use in national emergencies and for national defense needs. Another percentage would be given to states to use in hardship cases. This State Ration Reserve would be administered by local boards.

A schematic representation of rationing is shown in Figure I-1. This figure also shows the relationship of various preimplementation work packages. Not all work packages are shown.

FIGURE I-1

OVERVIEW OF STANDBY GASOLINE RATIONING PLAN (from private vehicle owner point of view)



ATTACHMENT II
Preimplementation Cost Summary

Work Package	November 1979 Supplemental Budget Request Estimate	Task Force Estimates	Time Needed To Complete Work Package Tasks
Allotment Planning	$ 490,000	$ 7,209,000	12 months
Ration Check-Production	3,773,000	6,100,000	6 months
Check Issuance/ National Vehicle Registration File (NVRF)	6,100,000	21,800,000	12 months
Coupon Production	5,265,000	20,500,000	3 months
Coupon Distribution	420,000	500,000	4 months
Management Information Systems	3,262,000	5,315,000	12 months
Ration Banking Operations	545,000	600,000	5 months
State and Local	8,700,000	10,874,000	12 months
Allocation Interface	82,000	300,000	12 months
Ration Rights Market Operations	664,000	700,000	5 months
Audit and Enforcement	265,000	400,000	12 months
Adjustments and Appeals	170,000	200,000	5 months
Public Information	150,000	5,014,000	12 months
Federal Organization	176,000	200,000	7 months
Program Management and Systems Integration Contractor	162,000	12,216,000	Total length of Preimplementation Period
Readiness Maintenance	276,000	300,000	6 months

Alternative Systems Design Concept Proposals	0	5,000,000	12 months
Other Costs (forms, etc.)	12,500,000	0	-
Management Reserve	0	20,000,000	-
TOTAL	$ 43,000,000	$ 117,228,000	12 months min., exclusive of start-up period

ATTACHMENT III

WORK PACKAGE: Allotment Planning

PACKAGE DESCRIPTION: This package will include the development of systems and procedures for computing the size of ration allotments and reserves, based on the total available supply of gasoline and on the number and type of eligible recipients. The actual distribution of allotments is not part of this package.

NOVEMBER 1979 SUPPLEMENTAL: $490,000

BASIS OF ESTIMATE: November 1979 Supplemental assumed only development of procedures for providing rationing entitlements to various classes of users, including priority-class activities, and procedures for calculating initial allotments.

REVISED ESTIMATE:

Develop supply projection capability	$ 150,000
Collect base period information from firms	5,474,000
Develop supplemental allotment applications processing capability	1,585,000
	$7,209,000

BASIS OF REVISED ESTIMATE: The Energy Coordinating Council directed that all businesses would be entitled to supplemental allotments based on historical use, and that all firms could file their base period consumption during pre-implementation. The increased funding request is primarily for collecting the base period data.

SCHEDULE: Formulation of allotment procedures will be completed in less than one year. Developing a system and the actual filing of base period consumption by firms will require a full year. This work can only be completed in one year if all data entry is performed by contractors.

RISKS: The primary risks in allotment planning are uncertainty concerning the number of firms which will file base period consumption data and the unit cost of processing the data. In addition, the effort provides a relatively minimal audit function for checking on firms filing improper or erroneous data. This audit function could begin only in the second year.

WORK PACKAGE: Ration Check Production

PACKAGE DESCRIPTION: It is necessary to have an adequate supply of ration checks available for issuance during the mobilization period. Checks are required for basic vehicle allotments, non-receipts, supplemental allotments, and State and National ration reserves, as well as for ration rights accounts and redemption accounts opened by firms.

NOVEMBER 1979 SUPPLEMENTAL: $3,773,000

BASIS OF ESTIMATE: Initial estimate included fewer checks than are now envisioned as necessary, and was based on a lower unit production cost estimate.

REVISED ESTIMATE: $6,100,000

BASIS OF REVISED ESTIMATE: The new estimate anticipates a greater number of checks to be used for agriculture and other businesses entitled to supplemental allotments. The revised estimate also includes funding for the transportation and storage of checks. The type of check to be used (post card, self mailer, separate check) will not be determined until the preimplementation period.

SCHEDULE: Check production will be accomplished in approximately six months.

RISK: The type of check format to be used is undetermined and this may affect production costs.

WORK PACKAGE: Check Issuance/National Vehicle Registration File (NVRF)

PACKAGE DESCRIPTION: This work package will develop the capability to: (1) maintain a National Vehicle Registration File (NVRF) from which ration checks are to be issued; (2) to issue ration checks based on motor vehicle registrations; and (3) reconcile checks against those issued.

NOVEMBER 1979 SUPPLEMENTAL: $6,100,000

BASIS OF ESTIMATE: This estimate was based on the collection of State vehicle data to form the NVRF without any significant data clean-up efforts. In addition, this estimate did not include substantial check reconciliation.

REVISED ESTIMATE:

Development of the National Vehicle Registration File (NVRF), including data acquisition, hardware and facilities, and software development	$ 11,600,000
Cleanup of State Motor Vehicle Data and Systems	$ 10,200,000
	$ 21,800,000

BASIS OF REVISED ESTIMATE: The revised estimate provides for a one-time clean-up of State DMV files, development and maintenance of an NVRF by a contractor, and development of procedures for check issuance and reconciliation. The estimate is based on utilizing existing data maintained by the contractor. The new estimate provides funds to lease required equipment for six months.

SCHEDULE: Development of check issuance and reconcilation procedures and creation of an NVRF can be accomplished in one year only if a sole source contract for the NVRF is awarded. The NVRF would include cleanup of State DMV data and improvements in systems and procedures.

RISKS: The risks involved include the facts that (1) Limiting households to three vehicles is difficult to enforce; (2) There is much undcertainty about the cost and effectiveness of the clean up of state data and systems; (3) A one-time clean up may result in temporarily improved files, but the quality of the files will deteriorate rapidly; (4) The cost estimate is based on reliance on a sole source contractor; (5) There are several potential areas for fraud in the systems; (6) States may not be willing to furnish DMV file data; (7) The issue of privacy rights may inhibit states from providing data; and (8) There is a question concerning contractor, State or Federal "ownership" of the file and further sale of the data.

WORK PACKAGE: Coupon Production

PACKAGE DESCRIPTION: Provides for manufacture of sufficient coupons to permit efficient operation of the rationing program during each ration period.

NOVEMBER 1979 SUPPLEMENTAL: $5,265,000

BASIS OF ESTIMATE: Original Spring 1979 package assumed serialization of existing 4.8 billion coupons, little more than a 60-day supply. Serialization was eliminated by the Congress. This $5,265,000 assumed using the existing coupons, as is, and printing a 30-day added supply plus additional studies on the feasiblity of a non-intaglio check size coupon.

REVISED ESTIMATE: $20,500

BASIS OF REVISED ESTIMATE: EECA made the coupons obligations of the U.S. Government. The U.S. Treasury proposed that a new lithographed coupon be designed, and that it be multicolor, one side only, with sufficient security features and serialization to satisfy the requirements of the U.S. Secret Service.

SCHEDULE: Three months

Five and a half billion lithographed coupons can be produced within three months using the resources of the Bureau of Engraving and Printing, other Federal agencies and commercial printers.

RISKS:

(1) Lithography is more prone to counterfeiting than steel engraved (intaglio) currency-like coupons; and

(2) There are issues concerning quality control and security involved in the use of commercial bank note printers. It would be easier to control the quality if one or two Federal printers were used.

WORK PACKAGE: Coupon Distribution

PACKAGE DESCRIPTION: The pre-implementation effort involves design of a transportation system to move ration coupons from storage and production points through Inventory Control Points (ICP's) to Coupon Issuance Points (CIP's), assuring security, accountability and a short-notice supply and resupply capability. Data systems are not part of this package, but are included in the Management Information Systems package.

NOVEMBER 1979 SUPPLEMENTAL: $420,000

BASIS OF ESTIMATE: The November 1979 estimate was based in part on handling the coupons currently stored in Pueblo, Colorado plus other coupons that would have been produced.

REVISED ESTIMATE: $500,000

BASIS OF REVISED ESTIMATE: The revised estimate reflects the exclusive use of new produced, larger coupons and also has been escalated to include inflation.

SCHEDULE: Storage and transportation plans and procedures can be developed in four months.

RISKS: The risks include:

(1) Role of the Federal Reserve Banks. If they are able to provide and obtain the necessary secure space for use as Inventory Control Points and to manage coupon supply and resupply Operations using their current contract carriers, a workable distribution system would be available. If not, a new system must be developed using combinations of government and commercial facilities and employees.

(2) Role of U.S. Postal Service in the distribution system, if needed.

WORK PACKAGE: Management Information Systems (M.I.S.)

PACKAGE DESCRIPTION: This work package identifies information requirements and develops the management information systems needed to operate the rationing program.

NOVEMBER 1979 SUPPLEMENTAL: $3,262,000

BASIS OF ESTIMATE: Estimate included cost of systems development, but did not include machine time and telecommunications costs.

REVISED ESTIMATE:

Coupon Distribution and Inventory Management and Control System	$ 805,000
Rationing Rights Exchange Market Information System	330,000
Ration Banking System	3,080,000
Financial Management and Accounting System	250,000
Audit and Enforcement Management System	250,000
Entitlement Computation System	600,000
	$5,315,000

BASIS OF REVISED ESTIMATE: The revised estimate allows funds for inflation, machine time and telecommunications, and systems development in a greater number of major regional banks for the Ration Banking System.

SCHEDULE: The required system development, adaptation and readiness can be accomplished in twelve months.

RISKS: The major risks involved are:

(1) The cost estimate assumes use/modification of existing DOE systems for financial management and audit and enforcement; and

(2) The estimated systems development cost per bank of $50,000 for the Ration Banking System contains a great deal of uncertainty. Bank systems experts felt the estimate was probably in the correct cost range but could not rule out the possibility of much higher costs in some banks.

WORK PACKAGE: Ration Banking Operations

PACKAGE DESCRIPTION: The effort requires developing procedures for processing applications for ration rights and redemption accounts, to receive deposits to accounts, and to transmit rights and redemption checks to Regional Processing Centers (RPCs). Ration banking data systems development is not part of this package, but is part of the Management Information Systems package.

NOVEMBER 1979 SUPPLEMENTAL: $545,000

BASIS OF ESTIMATE: Estimate included all funds for selecting CIP's and RPC's and developing manual procedures and materials associated with ration banking operations.

REVISED ESTIMATE: $600,000

BASIS OF REVISED ESTIMATE: The revised estimate includes an addition for inflation.

SCHEDULE: Completion of this effort will require five months.

RISKS: The risks include:

(1) The ability to preidentify potential Coupon Issuance Points (CIP's), Inventory Control Points (ICP's), Regional Procesing Center (RPC's) and Transfer, Verification and Destruction Agents (TVD's) during preimplementation.

(2) Capacities of CIP's, ICP's, RPC's and TVD's to handle 5.5 billion coupons.

(3) Willingness of the American Banking Association to cooperate, especially if legislation or regulations require that all banking institutions be mandated to participate.

(4) Verification counting of coupons will be dependent on the availability of counting equipment such as currency counters, check counters and weighing scales.

WORK PACKAGE: State and Local

PACKAGE DESCRIPTION: The States have an active role in administering the rationing program, especially in operating a network of local boards for dispensing hardship allotments to the handicapped and others with special needs. States need to develop policies and procedures, during the preimplementation period, for setting up and administering the State ration reserves from which hardship allotments will be issued.

NOVEMBER 1979 SUPPLEMENTAL: $8,700,000

BASIS OF ESTIMATE: The initial estimate funded the preparation of State manuals and procedures as part of the State rationing plan development effort.

REVISED ESTIMATE:

NGA Contract	$ 550,000
Develop State Plans	7,433,000
Develp detailed State Policy and Regulations	691,000
Develop audit and enforcement guidelines and training	1,300,000
Other	900,000
	$ 10,874,000

BASIS OF REVISED ESTIMATE: An additional $2.2 million has been provided to reflect the greater role of States in setting the level of their overall ration reserves, and for additional plan development work. Actual staff recruitment and training costs for local board operations are not included as preimplementation costs, but are considered mobilization period costs.

SCHEDULE: The development of State plans and related activities will be completed in less than one year.

RISKS: The risks include:

(1) The assumption that all State offices and local boards can be established, staffed and trained during the 90-day mobilization period. This is an optimistic assumption given the possible large number of individuals and firms which may initially contact the State and local boards for hardship allotments and information.

(2) Specific delegation of authority to States as it will influence future program monitoring, audit, enforcement, and other Federal activities.

(2) Circumstances under which DOE should step in to manage an SRR or the entire State during rationing.

WORK PACKAGE: Allocation Interface

PACKAGE DESCRIPTION: Provides for the rationing program's interface with the DOE gasoline allocation system in such areas as supplier-purchaser relationships, distribution of gasoline to wholesale and retail customers and transfer of gasoline between low-demand and high-demand areas during rationing.

NOVEMBER 1979 SUPPLEMENTAL: $82,000

BASIS OF ESTIMATE: The November 1979 estimate provided funds to:

(1) Review and modify allocation regulations;

(2) Identity supply imbalances; and

(3) Prepare manuals and materials.

REVISED ESTIMATE: $300,000

BASIS OF REVISED ESTIMATE: The revised estimate includes funds for:

(1) Determining the impact of initial delivery certification;

(2) Expansion of the definition of agricultural priority;

(3) Proportionate adjustments to reflect states' historic use; and

(4) Inflation.

SCHEDULE: This effort will be completed in less than one year.

RISKS: None

WORK PACKAGE: Ration Rights Market Operations

PACKAGE DESCRIPTION: The DOE will develop a standby capability to enter the ration rights market as a purchaser or seller of coupons, in case intervention is required, to stabilize the market. DOE will examine the requirements and develop the necessary procedures and materials. This package is supported by the rationing rights market information system being developed under the M.I.S. package.

NOVEMBER 1979 SUPPLEMENTAL: $664,000

BASIS OF ESTIMATE: The November 1979 estimate funded the design and development of wholesale and retail market intervention strategies.

REVISED ESTIMATE: $700,000

BASIS OF REVISED ESTIMATE: The initial estimate was increased for inflation.

SCHEDULE: This effort can be completed in five months.

RISKS: The impact and degree of hoarding and speculation in the ration rights market is unknown.

WORK PACKAGE: Audit and Enforcement

PACKAGE DESCRIPTION: The work package will provide Federal and state procedures to ensure compliance by individuals, firms, banks, petroleum industry and others involved with rationing regulations. The M.I.S. work package includes development of an audit and enforcement case tracking system.

NOVEMBER 1979 SUPPLEMENTAL: $265,000

BASIS OF ESTIMATE: The November 1979 estimate provided funding for procedures, manuals and training materials.

REVISED ESTIMATE: $400,000

BASIS OF REVISED ESTIMATE: The revised estimate includes additional funds for inflation and to accommodate DOE's providing firms with allotments based on historical usage and for inflation.

SCHEDULE: This effort will be completed in less than one year.

RISKS: None

WORK PACKAGE: Adjustments and Appeals

PACKAGE DESCRIPTION: The function of this package is to develop procedures and design an organization to process appeals from individuals and firms concerning ration entitlements. The type of appeals which should be heard at various levels will be identified.

NOVEMBER 1979 SUPPLEMENTAL: $170,000

BASIS OF ESTIMATE: The November 1979 estimate allows for development of procedures to accommodate adjustments and appeals.

REVISED ESTIMATE: $200,000

BASIS OF REVISED ESTIMATE: The revised estimate allows for inflation to be added to the original estimate. The issue of whether there should be an appeal process during implementation was considered by the Task Force. The Task Force recommended against hearing appeals during pre-implementation since no allotments will be made during this period.

SCHEDULE: Development of appeal procedures will require five months.

RISKS: None

WORK PACKAGE: Public Information

PACKAGE DESCRIPTION: The work package involves the development of advertising and public relations materials for informing the public about gasoline rationing implementation and program changes. There will also be an effort to advise firms to file base period consumption data during the pre-implementation period.

NOVEMBER 1979 SUPPLEMENTAL: $150,000

BASIS OF ESTIMATE: The November 1979 estimate included only a minimal public information pre-implementation effort, and did not request resources for the costs associated with state public information efforts which DOE is required to fund. Also, the estimate assumed free instead of paid advertising.

REVISED ESTIMATE:

Federal efforts	$ 964
State efforts	4,050
	$5,014

BASIS OF REVISED ESTIMATE: The revised estimate envisions a coordinated Federal/state effort. Federal funds will be directed at preparing masters of media announcements, press kits, brochures, etc. The DOE would fund state development of materials related to specific state media plans and television/radio/publications materials. A public information campaign will be directed toward firms during this time period also.

SCHEDULE: Can be completed in less than one year.

RISKS: It is essential that a public information program be designed carefully in order to ensure public participation without resulting in panic.

WORK PACKAGE: Federal Organization

PACKAGE DESCRIPTION: This work package plans the Federal organization required to direct and manage rationing mobilization and operation.

NOVEMBER 1979 SUPPLEMENTAL: $176,000

BASIS OF ESTIMATE: The initial estimate included funds for documenting DOE responsibilities, organization, functions and personnel requirements during mobilization and operation phases of rationing. Interagency agreements to provide specific skill requirements from other Federal agencies will be prepared.

REVISED ESTIMATE: $200,000

BASIS OF REVISED ESTIMATE: The initial estimate was increased for inflation.

SCHEDULE: Completion of this effort will take about seven months.

RISKS: The DOE may not be able to secure, through Federal details, the required number of Federal employees with the appropriate skills.

WORK PACKAGE: Program Management and Systems Integration Contractor

PACKAGE DESCRIPTION: This work package involves overall project management during the pre-implementation effort by Federal employees and coordination of all work packages to be accomplished by a systems integration contractor.

NOVEMBER 1979 SUPPLEMENTAL: $162,000

BASIS OF ESTIMATE: Initial estimate included only Federal personnel to oversee project effort, but did not fund effort to manage each work package. The initial estimate also did not provide any funding for a systems integration contractor.

REVISED ESTIMATE:

Program Management	$ 4,635,000
Systems Integration Contract	7,581,000
	$12,216,000

BASIS OF REVISED ESTIMATE: Funding for program management is based on 110 Federal staff years commencing upon funds availability. The estimate for the systems integration contract assumes contractor personnel will coordinate the coupon distribution, ration banking, check production, MIS, coupon production, NVRF, allotment planning and readiness maintenance work packages.

SCHEDULE: The systems integration contractor will be required until the products of all other work packages are brought to a state of readiness.

WORK PACKAGE: Readiness Maintenance

PACKAGE DESCRIPTION: This work package identifies and develops procedures for maintaining in a state of readiness all files, systems, materials, regulations, etc., during the period when pre-implementation is completed and mobilization has not yet begun.

NOVEMBER 1979 SUPPLEMENTAL: $276,000

BASIS OF ESTIMATE: The initial estimate was based on reviewing all work packages to identify readiness maintenance requirements and organizational responsibilities, to develop a monitoring system and to develop procedures for documenting and performing maintenance.

REVISED ESTIMATE: $300,000

BASIS OF REVISED ESTIMATE: Inflation is added to the initial estimate.

SCHEDULE: Readiness maintenance planning functions will be completed in six months.

RISKS: None

WORK PACKAGE: Alternative System Design Concept Proposals

PACKAGE DESCRIPTION: The purpose of this package is to obtain several alternative system designs for coupon-less gasoline rationing systems which eliminate the labor-intensive functions of the coupon/check based system and provide better accountability functions. These systems should be implementable within a three to five year timeframe.

NOVEMBER 1979 SUPPLEMENTAL: $ 0

REVISED ESTIMATE:

Three parallel efforts to develop design concepts based on modern technology	$5,000,000

BASIS OF REVISED ESTIMATE: The current plan contains many drawbacks related to handling large volumes of paper-based negotiable instruments. The movement of industry toward electronic methods suggests the viability of more modern techniques of rationing. In accordance with OMB Circular A-109, at least three system concepts will be funded.

SCHEDULE: The studies should provide viable system design concepts in one year.

RISKS: None

ATTACHMENT IV

PREIMPLEMENTATION ORGANIZATION AND STAFFING

Project Office Organization

A separate program office should be set up to manage the preimplementation effort. The office would consist of 110 full-time permanent personnel, organized as shown in Figure IV-1. The basic functions to be performed would be as follows:

- o Office of the Director - The Director will be responsible for the successful preimplementation of the rationing program. The Director should be an individual with the following experience and abilities:

  -- Management of large, integrated Federal programs, including systems development and substantial outside procurement;

  -- Ability to deal with other Federal agency, State and local senior managers;

  -- Ability to deal with private industry associations, such as the American Bankers Association; and

  -- Congressional liaison

- o Rationing Policy - This group will identify outstanding policy and design issues (e.g., the division of Federal/State responsibilities for adjustments and appeals) for resolution by the Director or higher authority.

- o System/Process Audits - This group will be responsible for quality control of all work package efforts. They will also work with the Systems Integration Contractor to assure that all work packages properly interface.

- Procurement - This group will be responsible for negotiating and administering all contracts and interagency agreements tasks to be carried out by other Federal agencies, State and local governments, including industry associations, and private companies. Preparing for these procurements is one of the key steps which should be taken in the period before Congressional approval of the rationing plan. It will be necessary to detail 10-15 procurement personnel from other agencies to supplement the regular staff in the initial period of bringing contractors on board.

- Systems Mangement - This group will be responsible for managing the efforts of The Systems Integration Contractor.

- Regional and Pubic Liaison - This group will: (1) provide technical assistance to the State and local governments in developing operational plans for rationing; and (2) be responsible for preparing and administering public information activities during preimplementation.

- Project Support - This group will provide the administrative support needed by the Project Office.

- High Technology R&D - This group will manage the contractors performing the feasibility studies for alternatives to the coupon rationing system.

- Accelerated Rationing - This group will be responsible for performing contingency plans which could be implemented quickly if rationing is required in less than 12 months.

The preimplementation effort will require a broad spectrum of technical expertise in large quantities for a comparatively short period of time (12 months). It is unlikely that skills in the quantities required to perform this technical work can be effectively mobilized within the Federal government in sufficient time to enable preimplementation to begin swiftly following Congressional approval of the plan. We recommend, therefore, that DOE utilize a Systems Integration Contractor who will be responsible for defining subcontracting for managing, and bringing to fruition the efforts of eight work packages which are particularly systems or operations oriented: coupon distribution, ration banking operations, ration check production, management information system, coupon production, the National Vehicle Registration File, allotment planning, and readiness maintenance planning. The Systems Integration Contractor will: (1) provide overall project planning integration, coordination, tracking, control, and reporting, (2) prepare progress reports, (3) assess work packages progress, (4) coordinate contractor activities within a work package, (5) evaluate impacts of policy changes, and (6) recommend product acceptance/rejection.

The Systems Integration Contractor would provide approximately 60 full-time personnel. The responsibility of Federal and Systems Integration Contractor personnel for various work packages is shown in Figure IV-2.

We have not addressed the role of the Systems Integration Contractor during readiness maintenance or program operations. The role will need to be decided early in the preimplementation effort.

Figure IV - 1
PROPOSED PROJECT OFFICE ORGANIZATION

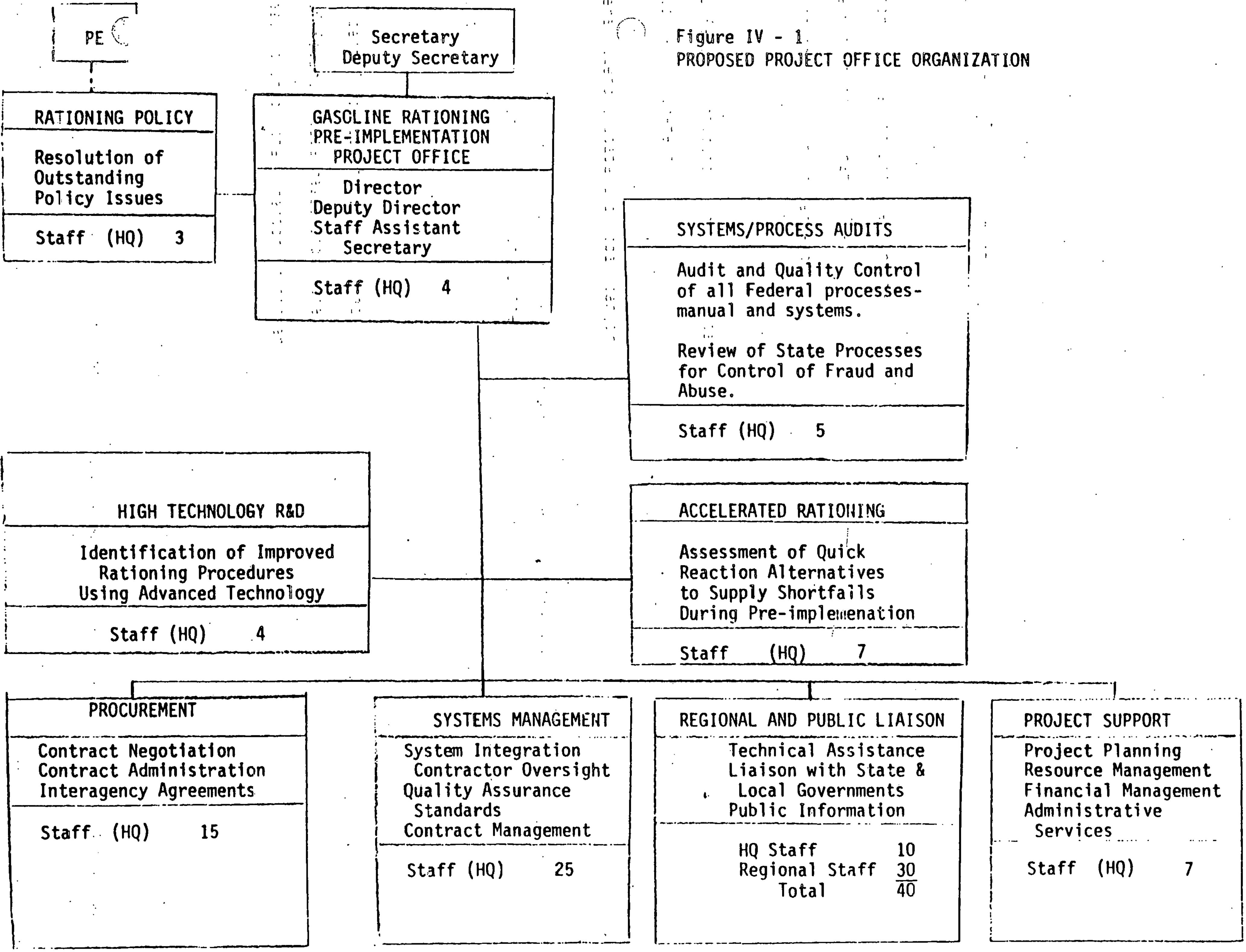


FIGURE IV-2
Preimplementation Staffing Requirements

Work Package	Federal Staff Requirement	Systems Integration Contractor Staff Requirement
Coupon Distribution	0.5	1.0
Ration Banking Operations	1.0	3.0
Federal Organization	2.0	-
Allocation Interface	1.0	-
Ration Rights Market	2.0	-
Adjustments and Appeals	2.0	-
Audit and Enforcement	1.0	-
Public Information	15.0	-
Ration Check Production	1.0	5.0
Management Information System	3.0	7.0
Coupon Production	1.0	5.0
NVRF	5.0	10.0
State and Local	25.0	-
Allotment Planning	2.0	4.0
Readiness Maintenence Planning	2.0	5.0
Program Management & Support	32.5	20.0
Subtotal	96.0	60.0
Rationing Policy	3.0	-
High Technology R&D	4.0	-
Accelerated Rationing	7.0	-
TOTAL	110.0	60.0

ATTACHMENT V
Procurement Authorities

Because of the relatively short term nature of preimplementation (lasting approximately one year) and the technical expertise involved, much of the preimplementation work must be done by private companies, industry associations, and States under contract to DOE.

The preimplementation time schedule in Attachment II does not include the start-up period where DOE is staffing the preimplementation project office and bringing contractors on-board. Thus, including the start-up period of 3 months, it would be 15 months before the rationing program would be at 90-day readiness.

Because of the necessity to have the rationing program at 90-day readiness within twelve months of Congressional approval of the supplemental budget request, DOE must seek to expedite the procurement process wherever possible. This will be especially important for the Systems Integration Contractor who must be on board as soon as possible following a go-ahead from Congress.

The ability of DOE to expedite procurement will depend on several items:

- o <u>Negotiation Authority</u> - A "class" Findings and Determination should be prepared for the Gasoline Rationing Preimplementation Project (GRPP) citing a negotiation authority of either: (1) National Emergency - must be approved by the Administrator, GSA; or (2) Public Exigency.

- o <u>Justifications for Non-Competitive Procurement</u> - Must be prepared for each single source procurement. Severe schedule constraints must be recognized, with detailed and bonafide explanations of why each non-competitively selected source is especially and uniquely qualified to meet such schedule constraints. The only truly legitimate basis for lack of competition would be the declaration of a national emergency.

o Procurement Personnel - Adequate procurement staffing must be provided to support the GRPP in order to expeditiously process the many (approximately 95) GRPP procurement requirements. Initially, no fewer than 30 procurement billets are necesssary, gradually decreasing to 15 after the first one-hundred-twenty days. We would require the temporary detail to the Project Office of 15 procurement personnel from the Departmental programs for the initial startup of preimplementation. An estimate of the manual requireiments and leadtime for each work package is shown in Figure V-I.

o Other Authorities - If there is going to be a separate Project Office for the Gasoline Rationing Preimplementation Project, and if such a Project Office is given an integral procurement capability, it should be requested that the Project Manager also be given designation as Head of the Procuring Activity (HPA).

o Congressional Liaison - The acknowledgement of the appropriate Congressional committees of the necessity for DOE to use extensive non-competitive procurements will be essential. This is because of the current criticisms being directed at DOE for the improper use of consultants. Therefore, continuing contact with the committees, informing them of our intentions and plans, should be maintained.

Because of DOE's desire to begin preimplementation as soon as Congress approves the plan and provides funding, noncompetitive sole source procurements would be the preferred alternative for many work packages. However to the extent possible, DOE should make a concerted effort to utilize expedited competitive procurement procedures as opposed to wholesale non-competitive procurement in order to:

- o Reduce the probability of delays due to protests.
- o Reduce Departmental exposure to criticism in an area where DOE is frequently criticized.
- o Enhance the probability of achieving a "meeting of the minds" with our contractors by virtue of receipt of technical proposals, oral discussions of such proposals, and the opportunity for acquiring proposal revisions.
- o Provide flexibility for making multiple awards when considered desirable, or where uncertainty (such as over how to establish a NVRF) creates the desire for multiple approaches.

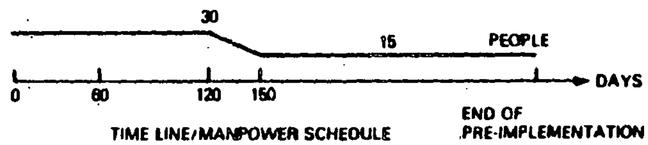
Acquiring "commercial transportation", "commercial storage", and providing for "coupon issuance points" through contract represent potentially enormous numbers of contracts, mostly of a "standby" nature. Because these requirements are not of as immediate concern as are certain other issues, they are not at present well defined. Management may wish to have these issues studied to determine how they might be acquired or established without creating administratively impossible demands.

GASOLINE RATIONING PRE-IMPLEMENTATION PROCUREMENT LEADTIME AND MANPOWER ESTIMATE
(Expedited Pre-Implementation — Non National Emergency Case)

NO. OF AWARDS	TYPE OF REQUIRE-MENT	Obtain GSA Waiver	Prepare PRs	Process PRs to P & CM	Solicitation Issued	Proposals Received	Proposals Evaluated	Discussions Held	Final Proposal Rec'd	Source(s) Selected	Cost Analysis Complete	Negotiations Complete	Documents Prepared	Documents Reviewed	Contract(s) Executed	Elapsed Time (Calendar Days)	Req'd 1102 Personnel	Req'd Support Personnel	First Phase/ Second Phase
1	Systems Integration	ACCOMPLISHED DURING 60 TO 90 DAY MGMT. PLANNING/ ORGANIZATIONAL PHASE			7	16	7	3	2	3	7	3	1	2	7	57	1	.5	1st
54	States & Territories				7	21	Na	Na	Na	Na	7	21	10	7	14	87	8	2.0	1st
1	NGA				4	14	Na	Na	Na	Na	10	2	3	2	2	37	.2	.1	1st
1 Plus	ADPE				14	10	5	Na	Na	4	Na	1	2	2	2	40	.5	.1	1st
Up to 8	IAAS				7	21	7	Na	Na	Na	10	7	2	2	21	70	1.0	.2	1st
1					7	14	Na	Na	Na	Na	21	7	3	3	7	62	.5	.3	1st
20 Plus	Banks-Ration Check OPS				21	28	Na	Na	Na	Na	14	14	7	2	4	100	2.0	.5	1st
1	Media/ Advertising				7	14	.7	3	2	3	7	1	1	1	7	63	.2	.1	2nd
1 Plus	Audit and Enforcement				7	21	7	3	2	3	7	1	2	1	7	61	.3	.1	2nd
	Commercial Transportation																		
	Commercial Storage																		
5 to 54 to 7	Coupon Issue Points				14	21	Na	Na	Na	Na	28	14	7	7	14	105	.5	1.0	2nd

FIRST PHASE 0 THROUGH 111 CALENDAR DAYS TO COMPLETE
FIRST PHASE PERSONNEL:
3 CONTRACTING OFFICERS
22 CONTRACT SPECIALISTS/COST ANALYSTS
5 SECRETARIES
30 TOTAL PROCUREMENT PERSONNEL - 1st PHASE

SECOND PHASE DAY 12 THROUGH COMPLETE
SECOND PHASE PERSONNEL:
2 CONTRACTING OFFICERS
5 CONTRACT SPECIALISTS/COST ANALYSTS
5 CONTRACT ADMINISTRATORS
3 SECRETARIES
15 TOTAL PROCUREMENT PERSONNEL 2nd PHASE



TIME LINE/MANPOWER SCHEOULE

NOTES: (1) ESTIMATE LEADTIMES FOR EACH TYPE OF REQUIREMENT IS BASED UPON
(A) NO. OF AWARDS FOR EACH REQ'T TYPE
(B) COMPLEXITY OF EACH REQ'T TYPE
(C) WHETHER COMPETITIVE OR NON-COMPETITIVE
(D) MANPOWER AS INDICATED
(E) ASSUMES AVAILABILITY OF 3 TO 4 WORD PROCESSING SYSTEMS (LEXITRONS, VYDECS, ETC.)
(2) FURTHER BASED ON ATTACHED ASSUMPTIONS

FIGURE V-I

Attachment VI

The Role Of Public Information During Rationing Preimplementation

Gasoline rationing and the possible social and economic upheavals associated with it will likely result in a confused and even angry public. The role of public information during this time will be critical. A successful rationing period requires the communication of trust, confidence and stability as well as instructions. Public information can accomplish the latter, but if the plan itself has major flaws, even a well thought out and executed public information plan cannot be effective. Public information planning in the preimplementation stage is essential to a successful responsive rationing operation.

During preimplementation, public information efforts will take place on four fronts:

(1) Preparing rationing information for use during rationing operation.

(2) Informing business and priority firms of the need to file gasoline consumption data.

(3) Informing vehicle owners of the need to update their registrations.

(4) Educating the general public on the meaning of preimplementation.

Each of these areas are described in more detail below:

1. Masters of radio and television announcements, press kits, posters, brochures and billboards of a generic nature would be prepared. More specialized publications aimed at specific groups impacted by rationing, such as banks, retail gasoline stations, coupon issuance points, etc. would be prepared. State publications and TV and radio announcements would provide specifics on rationing operations in each state.

2. The publicity campaign aimed at businesses and priority firms should be low-key. These groups can be adequately informed by supplying short (10 second)

TV and radio public service announcements and by contacting business editors, chmabers of commerce and trade publications. It is likely that the general press will see a story in this as well as publicize our filing activity, often with a local angle. We should expect that at least some of this reporting will be negative and/or inaccurate.

3. If the quality of the data in the vehicle registration files is to improved, the cooperation of vehicle owners in updating their registrations will be essential. This requires a different approach than the public information effort directed at firms. in case of firms the benefit from filing gasoline consumption data are more easily ascertained. For this reason a low-key approach is sufficient and appropriate from the standpoint that it will quickly become apparent that businesses will be entitled to more gasoline at the expense of the general public. However, in the case of registration update publicity, the benefits to the public are not as apparent. Because the success of rationing operation is heavily dependent upon accurate and timely DMV data, DOE should undertake a highly visible campaign to solicit motorists cooperation, e.g., example, a campaign similar to that conducted by the Census Bureau.

An informed public is essential to an effective rationing operation. Unless the public is throughly knowledgable with the rationing phases, the publicity in items (2) and (3) will be perceived as flagging immediate rationing, with ensuing confusion, panic and hoarding.

IV. Given the above, it is particularly critical that the public simultaneously know why a rationing plan has been developed and what DOE intends to do with it. This means the public will have to know what pre-implementation is and what it is not. This can be accomplished with minimal expenditures, except the additional personnel already proposed.

We recommend that DOE undertake a concentrated effort to reach the public through the press, our consumer outreach and speakers bureau. Preimplementation publicity should include meetings with editors, speeches, distribution of fact sheets and press kits explaining how preimplementation fits into rationing preparedness.

We recommend that DOE conduct a public opinion poll to gain insight into the public's perception of rationing and the areas of most concern to the public.

Any rationing publicity by DOE will be subject to various interpretations and misinterpretations. Public information personnel will have to deal with this on a case by case basis while generally making every effort to accurately portray rationing issues.

ATTACHMENT VII

Key Actions Required to Prepare for Preimplementation

Preimplementation of the standby gasoline rationing plan will be a complex and difficult project involving a large number of tasks, a variety of participants, several critical unresolved issues, and a tight schedule. To satisfy the preimplementation phase objectives, work will have to begin immediately upon approval of the plan by Congress in all major task areas. From a management perspective, the complexity of the project means that a substantial framework for managing the project is in place before the full scale activity begins and key actions are undertaken even before the plan is officially approved by the Congress. To reduce these risks, work should begin immediately in eight areas:

(1) Establish A Gasoline Rationing Preimplementation Project Office

A Gasoline Rationing Preimplementation Project Office should be created immediately to manage and coordinate all preimplementation planning activities. The organizational structure of the office should be firmly established and a nucleus staff in place before full-scale preimplementation begins In addition, a Director should be appointed who has experience both in managing the implementation of large Federal programs and in systems development. A delay in creating the Project Office will likely lead to further delays in initiating and coordinating early preimplementation activities. An organizational charter should be developed to define the responsibilities and functions of the office, the nature and form of its relationships with existing DOE offices, and the extent of its authority. The nucleus staff should establish the policies and procedures which will govern the office's operation and design the management tools to be used in controlling the project throughout the preimplementation phase.

(2) Complete and Update a Functional Design

The Project Office should complete a general design for the gasoline rationing system which defines the functions to be performed within each plan component and describes the relationships among the components. The system has been divided into functional modules; however, statements of work for private sector contracting support and a preimplementation management plan cannot be developed in the absence of fairly detailed definition of the systems's functional design. Furthermore, the project cannot be managed adequately nor the modules integrated properly without a detailed understanding of the interdependencies among the modules. Similar documentation was developed for earlier gasoline rationing plans -- e.g., the 1976 Ford Plan and the 1979 Carter Plan -- and can be used as a basis for an up-to-date functional design. However, a significant amount of work remains to reflect the recent changes in the plan such as preregistering firms' historical usage and to specify the interfaces among modules (e.g., compatibility of ration check design developed in the Ration Check Production Component with procedures for detecting fraud developed in the Ration Banking Operations Component). Among the major benefits to be derived from this effort will be the identification of detailed functions and key issues overlooked previously.

(3) Develop a Detailed Preimplementation Management Plan

The Project Office should develop a detailed management plan for use in planning, monitoring, and controlling preimplementation activities. The plan should describe each discrete task which must be performed during preimplementation to satisfy the objectives of the standby gasoline rationing plan. The management plan must be sufficiently detailed to establish clear assignment of responsibility, permit measurement of progress, and facilitate coordination of work and integration of results. At a minimum, the task descriptions should (1) define each task and its duration; (2) discuss key interdependencies among tasks and the relationships and coordination required among participating organizations; (3) identify primary responsibility for performing each task -- i.e., whether DOE, another Federal Agency, a State government, or a private contractor; (4) describe all unresolved issues which have a significant impact on the design of the system; and (5) identify any significant risks associated with each task. The critical path for the preimplementation phase should be identified to assist the Director of the Gasoline Rationing Project Office in focusing management attention to those tasks critical to its success. The management plan, DOE's primary management tool, should be a dynamic document -- i.e., it should be modified and updated throughout the preimplementation phase. In preparing the plan, the Project Office should, where possible, build on similar work performed in connection with earlier versions of the gasoline rationing plan.

(4) Establish an Intergovernmental Communications Network

Based on the detailed tasks defined in the Preimplementation Management Plan, an intergovernmental communications network should be established early in the preimplementation phase to ensure that all participants are aware of requirements for interagency agreements, intergovernmental contracts, and other activities where coordination among governmental organizations is essential. This activity is critical since a number of early preimplementation tasks -- e.g., allotment planning and ration check production -- depend on cooperation and coordination among federal government units, and several major elements of the plan -- e.g., adjustments and appeals, audit and enforcement, and the National Vehicle Registratior File (NVRF) -- depend on the cooperation of State agencies. Delays in negotiating agreements or contracts could adversely affect the preimplementation schedule.

(5) Establish an Effective Issue Resolution Process

A systematic process should be established for resolving the large number of issues associated with the standby gasoline rationing plan -- both those already identified and those which will emerge throughout the preimplementation phase. In the absence of well-defined procedures for resolving these issues, it is unlikely that the tight schedule for completing the preimplementation phase can be met. This process should have the following characteristics:

- o Decision authority - System design decisions will depend on timely resolution of the issues. Delays associated with extensive reviews will jeopardize the project Therefore, the Project Office Director should have real decisionmaking authority or ready access to it.

- o Systematic procedures - Issues should be presented in issue papers with alternative solutions and their impacts clearly defined.

- o Periodic meetings - Regular meetings -- e.g., weekly, -- should be convened to address outstanding issues and help to ensure that delays due to unresolved issues are minimized.

(6) Resolve Key Design Issues

Based on the management plan, all critical issues involving tasks on or near the critical path, or long lead time items should be addressed using the established issue resolution procedures. Many of these issues have been well-understood for some time; however, resolution of them is required to design the standby rationing system in detail. To avoid delays, as many of these issues as possible should be resolved prior to the beginning of full-scale preimplementation activity. As a first step in this process, priorities should be assigned to the outstanding issues and all high priority issues should be addressed and resolved within the first three months.

(7) Develop a Procurement Strategy

A large number of contracts with private sector organizations as well as other governmental units will be required to accomplish the preimplementation phase work packages. Many of these contracts must be awarded and the contractor fully staffed and prepared to start work very early in the preimplementation phase. This will impose a severe burden on DOE's procurement staff and prove unrealistic unless streamlined procurement practices are used. Additonally, DOE intends to award a systems integration contract for coordinating the work performed under the various work packages and integrating the results; however, systems integration contracts frequently do not achieve their intended results unless the integrating contractor has some degree of control over those organizations performing the detailed tasks. To address these issues, a procurement strategy needs to be developed which:

- o Defines the scope and nature of the systems integration contract and identifies those tasks which should be performed as subcontracts to the Systems Integration Contractor. (This will reduce DOE procurement burden and support the integrating contractor's control over the work to be performed.) The nature of the relationship between the Systems Integration Contractor and the Gasoline Rationing Project Office should also be defined.

- o Identifies the scope and nature of all other prime contracts required to accomplish the tasks contained in the management plan.

- Identifies complex or unusual contracting arrangements -- e.g., ADP acquisition contract with the NVRF contractor -- who may require authorization to modify standard procurement practices in order to meet preimplementation deadlines.

- Produces a schedule for preparing Requests for Proposals (RFP) consistent with the preimplementation task schedule.

The procurement strategy should be used as a basis for preparing work statements and RFPs, a critical activity since several large contracting efforts must begin immediately upon approval of the standby gasoline rationing plan.

Several of the management and integration tasks that must be initiated should be the responsibility of the Systems Integration Contractor later on; however, delaying their start until selection of the systems integration contractor would substantially increase the project's complexity. These responsibilities should be undertaken early on by the Project Office and then transferred to the Systems Integration Contractor at a later time.

(8) Initiate Work on Critical Tasks

Work shold begin immediately on tasks which are on or closely related to the project's critical path. In addition to resolving the critical issues discussed earlier, the adverse impacts of future delays can be reduced by beginning work immediately on critical tasks which do not require significant contractor support.

Among the tasks which appear to be on the critical path are:

- Award of a Systems Integration contract;

- o Establishment of relationshps with key State officials (e.g., State Energy Offices, Departments of Motor Vehicles);
- o Preliminary negotiations with a private contractor for work related to the National Vehicle Registration File;
- o Development of work statements and RFPs for key contracts; and
- o Establishment of relationships with other Federal agencies (e.g., Department of Treasury, Federal Reserve Board, Bureau of Engraving and Printing, and Department of Transportation).

ATTACHMENT VIII

TASK FORCE MEMBERS

Department of Energy

Jack Hewitt CFO
Frank DeGeorge CFO
William Coblentz EIA
Russell Coller CR
Peggy Dalrymple ERA
Bill Dorsey AD
Jim Furse PE
Gary Goodwin PR
Pat Hargett AD
Donald Hunt AD
Jim Mackey ERA
Irene Montie EIA
Joan Moshello PA
Beth Nelson IR
Michael Saltzman CR

Social Security Administration

Mark McCroy
William Moog
Paul Steiner

Contractors

Don Austin LBL
Robert Briden Calculon
Chuck Cooper Coopers & Lybrand
Barry Finklestein AMS
Peter Gretz AMS
David Hunsberger consultant
Myron Olstein Coopers & Lybrand
Ivan Selin AMS
Doug Smith AMS

WORK PACKAGE: Allotment Planning

PACKAGE DESCRIPTION: This package will include the development of systems and procedures for computing the size of ration allotments and reserves, based on the total available supply of gasoline and on the number and type of eligible recipients. The actual distribution of allotments is not part of this package.

NOVEMBER 1979 SUPPLEMENTAL: $490,000

BASIS OF ESTIMATE: November 1979 Supplemental assumed only development of procedures for providing rationing entitlements to various classes of users, including priority-class activities, and procedures for calculating initial allotments.

REVISED ESTIMATE:

Develop supply projection capability	$ 150,000
Collect base period information from firms	5,474,000
Develop supplemental allotment applications processing capability	1,585,000
	$7,209,000

BASIS OF REVISED ESTIMATE: The Energy Coordinating Council directed that all businesses would be entitled to supplemental allotments based on historical use, and that all firms could file their base period consumption during pre-implementation. The increased funding request is primarily for collecting the base period data.

SCHEDULE: Formulation of allotment procedures will be completed in less than one year. Developing a system and the actual filing of base period consumption by firms will require a full year. This work can only be completed in one year if all data entry is performed by contractors.

RISKS: The primary risks in allotment planning are uncertainty concerning the number of firms which will file base period consumption data and the unit cost of processing the data. In addition, the effort provides a relatively minimal audit function for checking on firms filing improper or erroneous data. This audit function could begin only in the second year.

(1)

ALLOTMENT PLANNING WORK PACKAGE
PREIMPLEMENTATION COST ESTIMATES

	Description	Cost	Federal Personnel Requirements
I.	Development of a Supply Projection Capability	$ 150,000 1/	?
II.	Collection of Base Period Information from Firms	$5,474,000 2/	3 FTE 3/
III.	Development of Supplemental Allotment Applications Processing Capability	$1,585,000 2/	2 FTE
	TOTAL 4/	$7,209,000	5 FTE + ?

NOTES

1. Informal estimate given by EIA. They have no plans to develop such a capability at present.

2. See attached breakdown.

3. 30 federal audit personnel (at about the GS-4 level except for one or two higher-level people to handle special cases) would be required for a period of 4 months to process mail audits. This would not occur until the second year of preimplementation.

4. The total does not include $600,000 for an entitlement computation system, which would be in the MIS work package.

ALLOTMENT PLANNING PREIMPLEMENTATION COST BREAKDOWNS

II. Collection of Base Period Information from Firms:

a.	Design and approval of form firms will submit (8 labor months @ $6K/labor month)	$ 48,000
b.	Printing of forms (12 million forms @ $0.085/form)	1,020,000
c.	Franking of forms for return postage (12 million forms @ $0.08/form)	960,000
d.	Distribution of forms to post offices (12 million forms @ $0.074/form)	888,000
e.	System development costs for ADP software associated with base period information (48 labor months @ $6K/labor month)	288,000
f.	Opening and batching returned forms (6 million forms @ $0.03/form)	180,000
g.	Keying and verifying information on forms (6 million forms @ $0.20/form)	1,200,000
h.	Editing and sorting of information (6 million forms @ $0.03/form)	180,000
i.	Error correction (15% error rate means 900K forms must be corrected by contacting and obtaining new information from firm -- 900K forms at $0.50/form)	450,000
j.	Data storage on tape	20,000
k.	Mail-in audits (0.2% audit of 6 million firms = 12,000 audits; average of 2 hours per audit @ $10/hr = $20/audit; therefore, 12,000 audits @ $20/audit)	240,000
	TOTAL	$5,474,000

III. Development of Supplemental Applications Processing Capability:

a. Design and approval of application forms (8 labor months @ $6K/labor month)	$ 48,000
b. Form printing and storage (12 million forms @ $85K/million forms)	1,020,000
c. Development of application process (12 labor months @ $6K/labor month)	72,000
d. System development cost for ADP software to support application process, including operating instructions (44 labor months @ $6K/labor month)	264,000
e. Development of backup manual procedures for use in case base period data base contains too many errors to be useful (18 labor months @ $6K/labor month)	108,000
f. Developing of training plan and materials for manual backup system (8 labor months @ $6K/labor month)	48,000
g. Printing and storage of training materials for manual backup system (5,000 sets @ $5/set)	25,000
TOTAL	$1,585,000

4

ASSUMPTIONS

1. 6 million firms will submit base period data and apply for supplemental allotments. This figure was calculated by adding together all firms with revenues over $100,000 per year,[1/] all farms not included in the first figure (i.e., with revenues less than $100,000 per year), all county, municipal, and township governments (they provide most priority services that aren't provided by firms), all national non-profit associations, and all hospitals. Figures for each group were obtained from the Statistical Abstract of the United States, 1978, published by the Census Bureau. The total came to about 5.5 million, and the 6 million total was selected to add a margin of safety.

2. In order to ensure that adequate supplies of forms are available for firms to pick up at post offices, twice as many will be printed as we expect to receive back.

3. Unit costs were obtained from experience with DOE's Building Temperature Survey where possible. Otherwise, estimates were obtained from AMS or were "best guess."

1/ The $100,000 figure is not a feature of the Standby Gasoline Rationing Plan. The task force used the fiture as a way of estimating the number of firms which may be expected to apply for a supplemental allotment.

Narrative Description

A. Allotment Planning Work Package Overview

- Allotment planning includes the calculation of gasoline allotments for all private individuals and firms. Private individuals will receive allotments based only on the vehicles they own and firms will receive (1) the same vehicle allotments as private individuals for vehicles the firms own, and (2) supplemental allotments to bring them up to a guaranteed percentage of their historical consumption.

- Vehicle-based allotments vary by state, and are a function of: (1) the projected national supply (less a national ration reserve) for the next ration period; (2) the state's historical proportion of national consumption; (3) the amount of supplemental allotments issued to firms in the state; and (4) the number of vehicles in the state.

- In order to issue supplemental allotments at the beginning of rationing, it will be necessary to collect base period information from firms during preimplementation. This is due to (1) the length of time needed to process this base period information; (2) the opportunities for auditing firms' data submissions during preimplementation which would probably not be available during rationing operations; and (3) the fact that the total amount of supplemental allotments must be known in order to calculate vehicle-based allotments. This submission of base period information would <u>not</u> constitute an application for supplemental allotments.

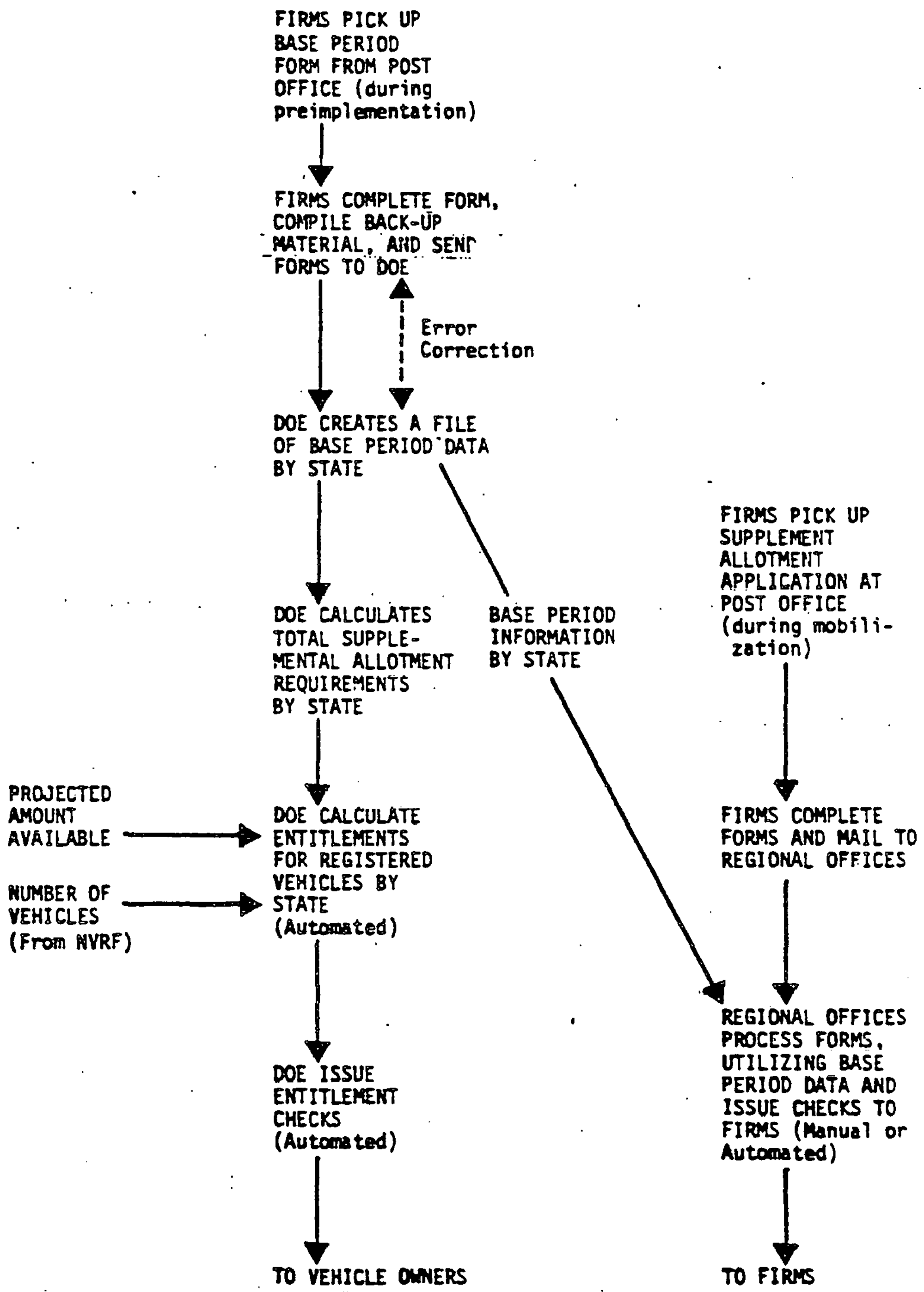
- The base period data would be stored in an automated data base, ready for use during rationing.

- Firms would apply for supplemental allotments at the beginning of the 90-day mobilization period. The applications would trigger an automated system which would use the previously submitted data to calculate supplemental allotments for individual firms. A manual back-up process would also be designed in case the automated system ran into problems.

- The allotment planning process is illustrated in Figure 1. A detailed description of the process is given in the sections which follow.

FIGURE 1

Allotment Planning Overview



7

A. Narrative Description of the Total Allotment Planning Process

The allotment planning process consists of several steps which are described below:

1. A system must be developed for projecting the total national supply of gasoline for each ration quarter (NTR in the rationing regulations), as shown in Figure 2a. At present, EIA has no plans to develop a separate forecasting model for rationing, and in general feels that they do not have the resources to provide much support to the rationing office during preimplementation. They estimated, however, that for approximately $150,000 preimplementation cost a system could be developed which would, during rationing, rely mainly on contacting all 300 domestic refiners and aggregating their projections.

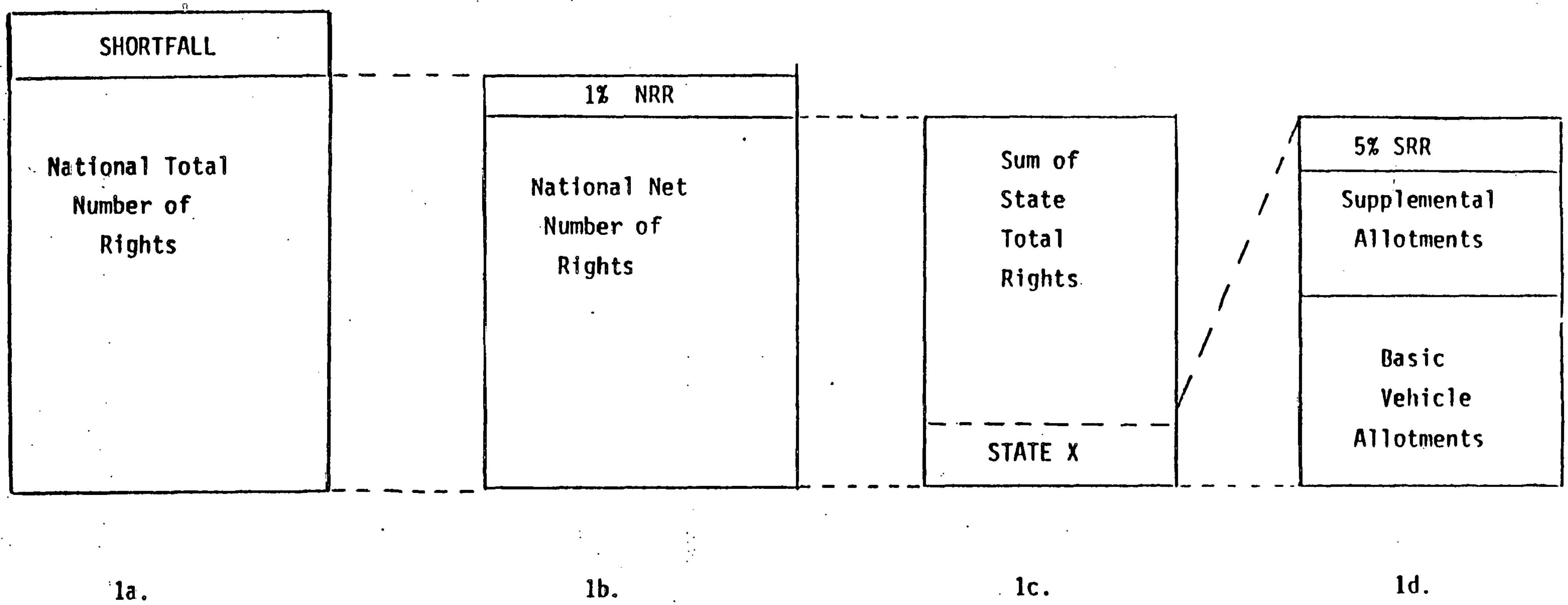
2. The total gasoline supply will be allocated as ration rights (RR) or coupons, which will be divided among various user groups, using an entitlement model. The cost of this model is included in the MIS work package, but would run approximately $600,000.

3. There are two major classifications of RR's, i.e., the National Ration Reserve (NRR) consisting of approximately 1 percent of the total supply; and the State Rights (STR). The STR's are further classified into three major categories, i.e., the State Ration Reserves (SRR) which consists of approximately 5 percent of a state's allotment and is to be used for hardship cases; the basic vehicle allotments, which provides an equal number of RR's for each vehicle in a particular class; and the supplemental allotments, which provide additional RR's for firms.

- The number of rights available to states (NNR) is calculated by subtracting the National Ration Reserve (NRR) from the total supply (NRT) as shown in Figure 2b. The calculation is simple, and is merely built into the entitlement model. The number of ration

FIGURE 2

Calculation of Various Allotments



rights available to a particular state (STR) is calculated by finding out the percentage the state's gasoline consumption was of the national gasoline consumption during a specified base period. The NNR is multiplied by this percentage to find the STR (see Figure 2c). Base period gasoline consumption is available from the Federal Highway Administration (based on gasoline excise tax receipts) or commercial sources such as the Ethyl Corporation. The cost of obtaining this information is minimal.

4. As stated, the STR is divided into three pieces (Figure 2d): (1) a State Ration Reserve (SRR); (2) supplemental allotments (SA) to businesses and priority users on top of their vehicle-based allotment, to bring them up to a percentage of their base period usage; and (3) basic vehicle allotments (SBR) to all vehicle owners in the state. Calculation of the State Ration Reserve involves a simple percentage calculation. Determination of supplemental allotments is described in Sections B and C. The basic vehicle allotments to individuals are determined by: (1) the amount of gasoline left over once the SRR and supplemental allotments have been subtracted; and (2) the number of vehicles in each state which appear in the National Vehicle Registration File.

5. In order to determine both the size of basic vehicle allotments and the size of supplemental allotments at the start of rationing, it will be necessary to know base period usage for those firms who may be eligible for supplemental allotments (see Section B), and the number of vehicles that each of these firms own. Then, the amount of gasoline remaining for individuals can be calculated and divided up for private vehicle allotments. Since it is difficult to distinguish firms and private vehicles in the NVRF, having firms provide the total number of their vehicles allows us to compute the number of private vehicles. This can be used to compute the per-vehicle allotment, and then the amount of supplemental allotments can be calculated. Following is an example of the way the calculation works.

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B. Obtaining Firms' Data During Preimplementation

1a. First, it will be necessary to decide exactly what information firms should submit, and design a form (plus instructions) to obtain that information. At a minimum, the information would probably include:

- Name
- Address
- Telephone number (for follow-up of omitted information)
- Firm Identification Number (Employee Identification Number or Social Security Number)
- Base Period Gasoline Consumption (by quarter or month)
- Percentage of Base Period Consumption used in priority activities (may be desirable to break out more than one priority category if these categories will receive different support levels during rationing)
- Number of registered vehicles
- Industry classification number (to distinguish farms and other priority groups and make other breakouts for analytic purposes)

NOTE: For processing purposes it is desirable to keep the number of data elements to a minimum.

b. A multi-state firm would be required to submit a separate form for each state in which it has registered vehicles or base period usage, e.g., reimbursement arrangements to persons using their own vehicles for firm business. This allows the individual forms to remain simple. Only a small percentage of all firms have multi-state operations.

Employees who use their private cars for firm business and are reimbursed by their firms are not allowed to file separately. Firms must file for them.

c. Form approval will take from 2 to 4 months.

d. Firms would not be required to submit supporting data with the form, but would be required to maintain backup records which could be requested during a mail audit. (This reduces initial processing efforts and provides some control over the accuracy of the reported data.)

e. The instructions submitted with the form must be written in a manner that will discourage firms who probably would not be eligible for supplemental allotments from submitting base period information.

2a. The forms would be printed, and shipped in bulk to post offices throughout the country. A heavy public information campaign would instruct firms to obtain the forms from the local post office and mail them to DOE. (The cost of this media campaign is included in the public information work package.)

b. The form would be a one page form folded over, sealed, and mailed to DOE. They would already be franked.

c. Each firm might be required to submit a $2 fee with the form to cover processing costs. More important, this would also hold down the number of firms submitting forms. (It is recognized that the cost of processing the fee may offset the cost benefit in obtaining it, therefore, no fee processing cost have been included in the total cost estimate.

d. Firms would be given three months to submit the forms.

e. DOE might rule that any firm not submitting base period data during this time period would not be allowed to apply for supplemental allotments until (say) the second ration quarter. This would guarantee that the data base developed during preimplementation could be used to calculate vehicle based allotments and supplemental allotments at the beginning of rationing as described in Section A above. During rationing, new firms created since the base period information submission could be treated separately, being given an "average" supplemental allotment for firms of their size in their industry group.

3a. Forms would be returned to DOE. They will be opened, batched, and keyed. This probably would be done by contract. It should take approximately 300 keypunchers 3 months to enter the data.

b. Software would be developed which would sort the data by state, and would also detect obvious errors and omitted data. DOE would follow-up for the errors and omissions. This step might take an additional two months.

4. At the end of this period, all the data would be stored and sorted by state on tapes.

5a. If preimplementation should last longer than a year, DOE would probably want to audit a sample of the firms. The computer software could be designed to flag firms whose gasoline usage per vehicle falls outside of an average range or shows other inconsistencies. A sample of the remaining cases could be selected for auditing purposes, with over-sampling of large firms with high base period usage and many vehicles.

b. The audit would be a mail-in audit. Firms would be contacted and asked to send in back-up data for the figures they submitted. Such back-up data might include receipts for bulk purchasers, IRS schedules, etc.)

C. Description of Supplemental Allotment Application Process

1a. During preimplementation, it would be necessary to design, approve, and print all application forms.

b. Other preimplementation activities would include: (1) design of an automated system to support applications processing; and (2) systems design, development of procedures, and design and printing of training materials for a back-up manual system.

2. During the 90-day mobilization phase:

a. Firms will be informed through the media that application forms are available at their local post office (the forms will have to be shipped to post offices at the beginning of mobilization).

b. Firms will complete the applications and mail to regional processing service bureaus. In general, they will be allowed to update name, address, and number of vehicles owned, but will <u>not</u> be allowed to change base period figures (because of the opportunities for fraud). However, procedures will have to be developed to allow firms to correct erroneous data in the files.

c. The regional centers will enter the firm's identification number and any data updates. The application processing system will pull the firm data from the base period file and, knowing the support level for priority firms and state per vehicle allotment, will automatically compute the size of the supplemental allotment for the firm, and mail a check to the company.

d. For subsequent quarters, the entire procedure will be done automatically. The original application will place the firm in a file of those firms to be issued supplemental allotments.

e. There will be two exceptions:

-- New firms will be allowed to apply for supplemental allotments. However, since they will have no recorded base period data, they will have to be given some "average" supplemental allotment based on their industry and size.

-- DOE will have to develop procedures to detect firms which go out of business during rationing, and thus do not deserve continued supplemental allotments.

3a. In case a problem develops with the automated applications process, (e.g., it is not ready in time), we have developed a standby manual back-up.

b. State rationing offices would be sent a print-out of the information stored on the base period tapes. It would list all companies by geographical area and within the area, in alphabetical order.

c. Firms would send their applications to the state offices. Clerks would calculate the allotment for all large firms (using the same algorithm used by the automated system), and all small firms would be given an "average" allotment which would be standardized for firms of a particular size in a given industry.

d. Once the automated system was operating, it could determine whether the small firms had been over or under entitled by being given the average allotment, and adjust the next ration quarter's allotment appropriately.

e. If the automated system could not be brought on-line, firms could either reapply to the state each quarter (following the above procedure) or automatically receive the same allotment as the previous quarter. The better alternative must be determined by DOE.

WORK PACKAGE: Ration Check Production

PACKAGE DESCRIPTION: It is necessary to have an adequate supply of ration checks available for issuance during the mobilization period. Checks are required for basic vehicle allotments, non-receipts, supplemental allotments, and State and National ration reserves, as well as for ration rights accounts and redemption accounts opened by firms.

NOVEMBER 1979 SUPPLEMENTAL: $3,773,000

BASIS OF ESTIMATE: Initial estimate included fewer checks than are now envisioned as necessary, and was based on a lower unit production cost estimate.

REVISED ESTIMATE: $6,100,000

BASIS OF REVISED ESTIMATE: The new estimate anticipates a greater number of checks to be used for agriculture and other businesses entitled to supplemental allotments. The revised estimate also includes funding for the transportation and storage of checks. The type of check to be used (post card, self mailer, separate check) will not be determined until the preimplementation period.

SCHEDULE: Check production will be accomplished in approximately six months.

RISK: The type of check format to be used is undetermined and this may affect production costs.

RATION CHECK PRODUCTION

COST		Dollars in Thousands
- Studies prior to check production		
o Review assumptions, outstanding issues and contraints such as feasibility of one-pass ink-jet addressing simultaneously with printing		$ 200
- Printing		
Total number of checks needed	- 211 million	
+20% safety buffer	- 42 million	
=Total number of checks printed	253 million	
Number of checks	- 253 million	
xCost of checks	$17/thousand	
+Cost of MICR Encoding	$500,000	
=Total checks production cost		$4,800
- Variable additional costs		
Stock acquisition, shipment, option of preprinting of unaddressed checks, shipment, packaging, storage and shipping cost		1,100
TOTAL		$6,100

ASSUMPTIONS

- o Checks will be self-mailers for direct computer printing; checks will be preprinted with a MICR serial number.
- o All checks for first period will be printed except for names and addresses and stockpiled during preimplementation.
- o Checks for succeeding periods will be printed so that they will begin to be ready 60 days before the start of the period.
- o There will be 148 million vehicle registrants (Source: R. L. Polk), 30 million claims for nonreceipt of check; 15 million Federal Supplemental Allotment Checks (Source: IRS); 14 million State Ration Reserve Checks; 1 million National Ration Reserve Checks; 3 million starter kits for Ration Rights Account Checks; and 0.2 million starter kits for Redemption Account Checks or about 211 million total.

- A 20 percent safety buffer is needed for uncertainty in the first quarter and a 10 percent buffer is needed for succeeding quarters.

- R. L. Polk (in 1978) estimated the cost of the checks (without MICR encoding) at $17 per thousand; Quotes have been obtained by the Department's printing officials (in 1980) of $12 per thousand, but the figure did not include the the cost of stock and MICR encoding.

WORK PACKAGE: Check Issuance/National Vehicle Registration File (NVRF)

PACKAGE DESCRIPTION: This work package will develop the capability to: (1) maintain a National Vehicle Registration File (NVRF) from which ration checks are to be issued; (2) to issue ration checks based on motor vehicle registrations; and (3) reconcile checks against those issued.

NOVEMBER 1979 SUPPLEMENTAL: $6,100,000

BASIS OF ESTIMATE: This estimate was based on the collection of State vehicle data to form the NVRF without any significant data clean-up efforts. In addition, this estimate did not include substantial check reconciliation.

REVISED ESTIMATE:

Development of the National Vehicle Registration File (NVRF), including data acquisition, hardware and facilities, and software development	$ 11,600,000
Cleanup of State Motor Vehicle Data and Systems	$ 10,200,000
	$ 21,800,000

BASIS OF REVISED ESTIMATE: The revised estimate provides for a one-time clean-up of State DMV files, development and maintenance of an NVRF by a contractor, and development of procedures for check issuance and reconciliation. The estimate is based on utilizing existing data maintained by the contractor. The new estimate provides funds to lease required equipment for six months.

SCHEDULE: Development of check issuance and reconcilation procedures and creation of an NVRF can be accomplished in one year only if a sole source contract for the NVRF is awarded. The NVRF would include cleanup of State DMV data and improvements in systems and procedures.

RISKS: The risks involved include the facts that (1) Limiting households to three vehicles is difficult to enforce; (2) There is much undcertainty about the cost and effectiveness of the clean up of state data and systems; (3) A one-time clean up may result in temporarily improved files, but the quality of the files will deteriorate rapidly; (4) The cost estimate is based on reliance on a sole source contractor; (5) There are several potential areas for fraud in the systems; (6) States may not be willing to furnish DMV file data; (7) The issue of privacy rights may inhibit states from providing data; and (8) There is a question concerning contractor, State or Federal "ownership" of the file and further sale of the data.

ATTACHMENT I

Check Issuance and Reconciliation Work Package
(Includes National Vehicle Registration File)
Preimplementation Cost Estimates

A. Preimplementation Cost Summary

Item	Estimated Cost
1. Development of the National Vehicle Registration File (NVRF), including hardware and facilities, data acquisition, and software development	$ 11,600,000
2. Clean-up of state data, including a one-time data clean-up and longer term improvements in state systems and procedures.	10,200,000
TOTAL	$ 21,800,000

B. General Assumptions

The following major assumptions were made in developing these cost estimates:

1. The NVRF will be a centralized batch data processing system which will maintain vehicle registration data which originates with state Departments of Motor Vehicles (DMVs). The system will support the following functions of the rationing program: (1) maintenance of a list of individuals and firms entitled to receive ration rights; (2) ration check issuance; and (3) reconciliation of ration checks to produce a list on magnetic tape of individuals and firms who may have obtained or cashed checks improperly.

2. Vehicle registration data and some software will be made available to DOE by a private contractor that specializes in state vehicle registration files. If the contractor develops the NVRF by expanding current operations, total costs may be lower.

3. Cost estimates are based on information provided in the report summarizing the study conducted by Oak Ridge National Laboratory for DOE, 1/ with adjustments where noted in the sections below.

1/ A Feasibility Study of a Standby Gasoline Ration Check Issuance and Reconciliation System, A.A. Brooks, et al., Union Carbide Corporation, Nuclear Division, Oak Ridge National Laboratory, December, 1979. (This report is referred to as the Oak Ridge report throughout this attachment.)

4. Cost estimates are based on the assumption that in the twelve month preimplementation period, computer hardware and equipment will be leased for six months.

C. Basis for Cost Estimates

1. Development of the NVRF

Item	Estimated Cost
• Data Acquisition	$ 3,400,000
-- Covers acquisition of data not currently available from state DMVs or contractor (i.e., primarily records which are not in computer-readable form)	
-- Cost estimate based on Oak Ridge estimate reduced assuming that most state vehicle registration data will be made available by a contractor and that the preimplementation period will be only twelve months. Costs may be higher than estimates if contractor data cannot be obtained, and all records must be obtained directly from state DMVs.	
-- Estimates cover personnel and equipment.	
• System Development	
a. Data Integration Module (includes production of check issuance tapes)	
(1) Systems development[1/]	$ 3,900,000
(2) Hardware and facilities[2/]	$ 1,200,000
-- Assumes roughly six months of lease cost	
-- Purchase price would be about $8 million	
Module Total	$ 5,100,000

1/ Software development costs probably would be lower if a contractor which specializes in state vehicle registration systems builds upon existing software.

2/ Required equipment and cost estimates listed in Oak Ridge report, p. 74. The cost estimates on page 74 were rounded up from $158,980 to $160,000 per month to cover miscellaneous additional equipment.

b. <u>Check Issuance Module</u>

(1) Systems development and standby operations staff	$ 1,600,000
-- Cost estimates from Oak Ridge report	
-- Costs may be lower if checks are printed by the Treasury Department	
(2) Equipment	$ 200,000
-- Fourteen high speed printers leased for six months (full purchase price about $1.6 million)	
-- Costs would be lower if existing printing facilities (e.g., the Treasury Department) can be used	
Module Total	$ 1,800,000

c. <u>Check Reconciliation Module</u>

(1) Systems development and standby operations staff	$ 700,000
-- Cost estimates from Oak Ridge report	
-- Assumes that Optical Character Recognition (OCR) will be used. Whether or not OCR will be used is an unresolved issue, the resolution of which may affect the cost of this module	
(2) Equipment	$ 600,000
-- Ten OCR machines for 6 month lease period (full purchase price of $2.4 million)	
Module Total	$ 1,300,000

Total Cost for NVRF Development, Including Data Acquisition	$ 11,600,000

2. <u>Clean-up of State Data, Systems, and Procedures</u>

<u>Item</u>	<u>Estimated Cost</u>
a. Perform a study and evaluation to determine the most cost-effective approach to improving state registration data.	$ 200,000

-- Study probably will be performed by a contractor

-- DOE should consider forming a task force with representatives of the American Association of Motor Vehicle Administrators (AAMVA), some state DMVs, and the Department of Transportation to assist in the effort

-- Study should cover both a one-time data clean-up effort and longer term improvements in state registration systems and procedures.

b. Perform "clean-up" activities

(1) One-time data clean-up for readiness at the end of one year. There is no reliable way to estimate the costs for these "clean-up" activities until the study described above is completed. However, the following assumptions were made in developing these rough estimates.	$ 5,000~~,000~~

-- Public service announcements, prepared jointly by DOE and states, would be used to encourage vehicle owners to update their registration records. 1/

-- DOE would provide data entry assistance to states for processing the additional file update forms and for distributing forms to vehicle owners.

1/ The cost of these announcements would be minimal.

Item	Estimated Cost
-- It was assumed that 5 million people would respond out of an estimated 15 million whose addresses are incorrect. It was further estimated that it would cost an average of $1 for each individual responding, including form production, mailing, and data entry.	
(2) Development and implementation of on-going modifications to state DMV systems and procedures.	$ 5,000,000
-- There is no way to estimate reliably how much money will be needed or useful.	
-- The current estimate is based on an average of $100,000 for each of 50 states.	
-- These modifications will improve the quality of data over a two year period.	
Total Cost for Clean-up of State Data, Systems, and Procedures	$10,200,000

ATTACHMENT II

Overview of the National Vehicle Registration File for the Issuance and Reconciliation of Ration Checks to Individuals

A. Background

The Standby Gasoline Rationing Plan calls for the issuance of ration rights to individuals on the basis of vehicle registration data originating with state Departments of Motor Vehicles (DMVs). According to current planning concepts, ration rights, in the form of ration checks redeemable for coupons, will be issued to each registered owner of a motor vehicle, provided that the vehicle is gasoline-powered and in operating condition. Owners of registered vehicles who are entitled to receive ration rights will be identified on the basis of information obtained from state DMV motor vehicle registration files.

DOE's previous gasoline rationing planning efforts have included several reviews of the basic capabilities and data systems of the state DMVs. The result of these efforts indicate that all fifty-four jurisdictions covered by the plan could supply all the information required to identify the individuals entitled to receive rights. In several jurisdictions, however, the available data may be highly inaccurate and/or out-of-date. Two major types of problems would result from inaccuracies in state records:

(1) Some owners of registered vehicles would not receive the ration checks to which they are entitled; and

(2) Some individuals would receive ration checks to which they are not entitled.

The major causes of problems of the first type are changes of address which are not reported to the DMV and processing backlogs at DMVs. It is not possible to estimate precisely the number of entitled individuals who would fail to receive their ration checks for these reasons; best available estimates indicate that approximately 10% or 15 million "non-receipts" may occur.

The major causes of problems of the second type are that scrapped or inoperable vehicles may be included in many state files, some vehicles may be included in a state's file more than once (registered by more than one individual), and some vehicles may be registered in more than one state simultaneously. Reliable estimates for the incidence of likely unentitled recipients also are unavailable. Best available estimates indicate that approximately 7% or 10 million individuals may receive checks to which they are not entitled.

In an attempt to solve some of the problems associated with state registration files, the plan calls for DOE to develop and maintain a National Vehicle Registration File (NVRF) to support the rationing program. The NVRF would be designed to support five major functions:

(1) Initial identification of individuals and firms[1/] entitled to receive ration rights, including restricting each household to entitlements for three vehicles or less.

(2) Maintenance of the list of entitled individuals and firms[1/] including direct updating of the NVRF during rationing operations.

(3) Quarterly issuance of ration checks.

(4) Reconciliation of ration checks to support audit and enforcement activites.

(5) Development of some information necessary for management of the rationing program (e.g., to support entitlement computation).

[1/] The NVRF will not include information on supplemental allotments for firms or on hardship allotments for individuals.

During preimplementation, the capability (i.e., hardware, software, procedures, and a minimal staff) will be developed. During a standby period, it will be necessary to maintain the NVRF, although direct updating (i.e., bypassing the state DMVs) of the file will not be instituted before the mobilization period.

Vehicle registration data required to support the rationing effort may be obtained in one of two ways. Registration records can be obtained directly from each state DMV or, alternatively, they can be obtained from a private contractor which specializes in state motor vehicle registration records.[1] DOE has considered the advantages and disadvantages of both of these alternatives in designing the rationing plan. Our recommendations regarding this issue, as well as a basic approach to using state registration records in support of rationing, are presented below.

B. A Rationing Program Ready in One Year

It would be possible to obtain state registration records for the purpose of issuing ration rights within roughly one year. However, in one year, DOE would be limited in its ability to ensure the reliability of the state files, even though the reliability and accuracy of these files is a major determinant of the accountability and, perhaps, the ultimate success of the rationing effort.

The following preimplementation steps would be required to develop a minimally acceptable vehicle registration/check issuance component of the rationing program within one year:

- Assemble complete copies of the registration files of all states. Most of this data would be collected from a contractor of the type discussed above, if that can be worked out politically and contractually. Additional data would have to be collected from some states, either directly by DOE or indirectly through the contractor.

[1] Two such contractors known to DOE are R.L. Polk & Co. and Donnelly Marketing. To our knowledge, R.L. Polk is the only contractor with a direct and long standing relationship with the state DMVs and for this reason, may be the preferred contractor.

- Extract a sample of the registration records and conduct an evaluation of data quality, completeness, and currency. This evaluation may be accompanied by a test mailing.

- Consider the results of the evaluation and other available data on state systems and capabilities and identify the states in which ~~data~~ improvement activities are expected to have the most benefit.

- Institute one-time data improvement activities in those states. The most likely type of data improvement activity will involve public service announcements encouraging vehicle owners to ensure that the DMV has their current names and addresses. In addition, DOE would assist states to expedite their procedures for updating registration files.

- At the same time as the above described activities are initiated, DOE would begin acquisition and development of a computer system for maintaining an integrated National Vehicle Registration File (NVRF) for issuing and reconciling ration checks. The best approach to this effort within one year would be to build upon the vehicle registration data base maintained by a contractor of the type discussed above; in fact, the optimal approach would be to have the contractor simply expand its current operation. If this cannot be arranged, DOE would be forced to issue ration rights on the basis of less reliable data obtained directly from states, and would be unable to develop an effective computerized, integrated NVRF within the allotted one year preimplementation period.

Exhibit 1, Part A, shows the sequence of events required for preimplementing the one year plan.

C. A Rationing Program in Two Years

In two years DOE could develop an NVRF with somewhat increased accountability and accuracy. This is especially so if a contractor of the type discussed above is involved. Without the involvement of such a contractor, DOE would be required

EXHIBIT 1

Schedule of Major Preimplementation Activities for the NVRF*

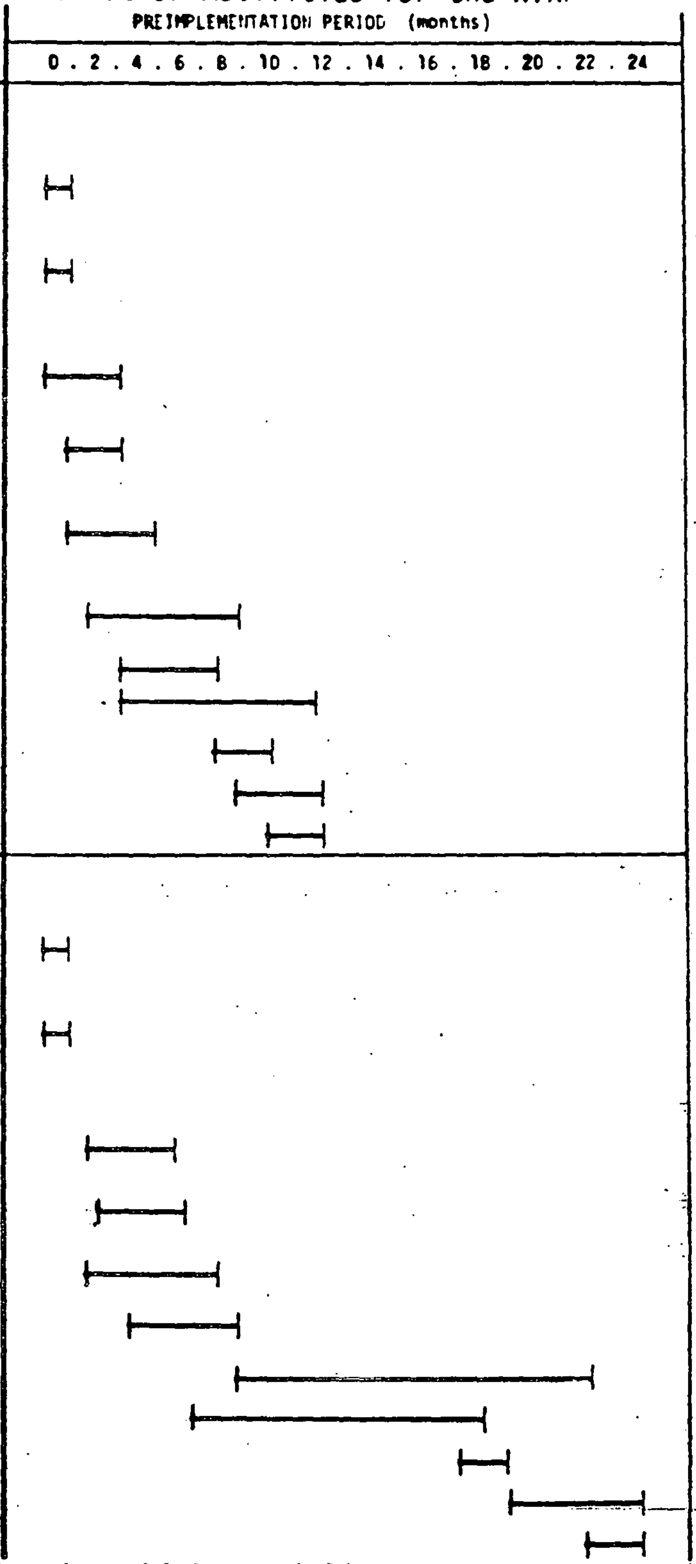
TASK

A. One-Year Preimplementation

1. Develop a strategy for developing an NVRF and select a contractor.
2. Establish working relationships and necessary agreements with state DMV officials and representatives of the American Association of Motor Vehicle Administrators (AAMVA)
3. Conduct an evaluation (including perhaps a test mailing) of the quality and currency of state registration records
4. Prepare detailed specifications for an NVRF, including interfaces w/other elements of the rationing program.
5. Initiate public awareness activities to encourage vehicle owners to supply the DMVs with current name and address data
6. Assist states with processing file updates
7. Procure hardware and standard software
8. Develop software
9. Install hardware
10. Collect final data from states
11. Test system

B. Two-Year Preimplementation

1. Develop a strategy for developing an NVRF and select a contractor.
2. Establish working relationships and necessary agreements with state DMV officials and representatives of the American Association of Motor Vehicle Administrators (AAMVA)
3. Conduct an evaluation (including perhaps a test mailing) of the quality and currency of state registration records
4. Prepare detailed specifications for an NVRF, including interfaces with other elements of the rationing program.
5. Procure hardware and standard software
6. Develop and install new state procedures or modified systems
7. States operate new procedures
8. Develop software
9. Install hardware
10. Test system
11. Collect final data from states



*This schedule assumes that a contractor which specializes in state vehicle registration files is heavily involved in the system development effort.

to spend millions of dollars for acquiring and verifying state data, developing software which the contractor could more easily provide, and duplicating the contractor's existing expertise in state vehicle registration systems. In fact, it is our view that DOE could not effectively duplicate the capabilities of such contractors in two years. Accordingly, a DOE NVRF, built without the involvement of such a contractor, would be considerably less reliable and accountable, as well as more expensive than an NRVF developed by expanding the existing system of one of these contractors.

The other major element of the "two-year" standby plan is that DOE would have enough time to assist state DMVs to develop and institute improvements to their registration procedures and recordkeeping systems. Because most states require annual vehicle registration, it would take at least two years for improved state systems to affect the quality of registration data: during the first year, improvements would be instituted; during the second year, as vehicles are re-registered, the quality of the data would be improved. The nature of system improvements would be highly state-dependent. Consequently, the first step in the process would be conducting sample test mailings and an evaluation of each state's systems and procedures. Following this, DOE would identify states with the most severe data accuracy problems, and would work with officials in those states to develop and institute improved systems and procedures. The kinds of improvements currently envisioned include:

- Providing software to states for data edit and verification (e.g., Zip Code verification software, software for editing Vehicle Identification Numbers);

- Implementation of improved and more frequent procedures for updating the files. This might include an on-going or periodic public awareness effort to convince the public of the importance of maintaining current records;

- Institution of uniform inter-state procedures for detecting and eliminating inter-state duplicate registrations;

- Tightening up of registration and titling procedures to reduce the likelihood of fraudulent registrations; and

- Assisting some states (e.g., Idaho) with the development of new automated information systems.

Exhibit 1, Part B, shows the sequence of events required to preimplement the two-year plan.

D. Key Issues Affecting the NVRF

Several major problems or issues which affect the NVRF should be addressed or at least considered during preimplementation. First, the NVRF will be constructed using data which is collected and maintained for a completely different purpose. State motor vehicle registration data is intended to support state revenue collection and law enforcement functions. Accordingly, the incentives which are inherent in state registration systems are different from the incentives which would be ideal from the perspective of gasoline rationing. For example, individuals and many states have no incentive to keep their name and address records current. In addition, states have no incentive to purge registration records after vehicles have been transferred or scrapped. Consequently, although the registration files are sufficiently accurate to support state objectives and functions, they are less than adequate for supporting an effective, credible, and accountable rationing program.

Second, it will be difficult for DOE to assure the cooperation of state DMV officials which will be necessary to improve the quality, currency, and reliability of state registration data. Working toward these improvements is a major element of both the one-year and two-year preimplementation plans. However, it is expected that DMV officials in some states will reject DOE's attempts to modify state procedures and systems or to improve data reliability. Some states traditionally have been reluctant to standardize their procedures and to cooperate with the Federal government in such matters. In addition, many state DMVs have opposed national registration of either vehicles or drivers, and may view creation of an NVRF as a first step toward national registration. Accordingly, DOE will have to make a concerted effort to enlist the cooperation and support of state DMV officials early in preimplementation.

Third, effective development of an NVRF in one or two years requires heavy involvement of a private firm that specializes in state vehicle registration files and records. In fact, the optimal approach would be for DOE to issue a single sole source contract under which such a firm would expand its operation and develop and maintain the NVRF. Clearly, such reliance on a single contractor for a vital element of the program involves considerable risk, both technical and political.

Fourth, there is tremendous uncertainty regarding the effectiveness of the efforts discussed above to improve the quality of state registration data. Both the one-time data "clean-up" effort and the longer term improvement of state procedures and systems may, in fact, not produce tremendous improvements in the credibility or accountability of the rationing program. On balance, however, it is the view of this task force that DOE should proceed with these efforts during preimplementation with the expectation that they will be somewhat effective.

Fifth, the NVRF as currently conceived would be a "batch" system which has very limited capability to account for and control fraudulent use of ration checks. A major source of system vulnerability is that an individual who claims not to have received his ration check would be issued another check after presenting appropriate documentation and completing required forms. Because the NVRF would be a batch system, it would not be possible for the check issuance personnel either to verify "on the spot" that the original check had in fact been issued or to invalidate the original check. Although it would be possible through check reconciliation and "post-audit" procedures to identify some individuals who obtained ration rights fraudulently, it would be very difficult and expensive to apprehend and prosecute many violators. Moreover, there would be a significant delay before any enforcement action is possible. An "on-line" NVRF would provide substantially greater accountability and fraud control, but would be more time-consuming (perhaps 3 to 5 years) and expensive to develop.

Sixth, there are difficulties associated with restricting a household's allotment of ration rights to at most three vehicles. To incorporate this element of the proposed plan into the check issuance process, DOE must first establish a precise definition of "household." Once a definition is established, it would be possible to develop an automated process for identifying households with more than three registered vehicles. For example, the NVRF might be used to identify all situations in which more than three vehicles are registered to one or more individuals at the same address, provided that all the individuals have the same surname. Each such "household" would be issued only three ration checks. However, because of the likelihood of error (e.g., some firms may be identified as households, and some groups of independent adults may be identified as households), it may be desirable to institute a manual review procedure in addition to the automated process.

E. Recommendations

It is our recommendation that DOE should follow the general process outlined in Section B of this paper for developing an NVRF in one year. In addition, steps should be taken immediately to begin to develop modifications and improvements to selected state DMV systems and procedures, even though it will take roughly two years before these modifications affect the quality and currency of registration data. The first two key steps that must be taken in the area of the NVRF are as follows:

(1) DOE management, working with the systems integration contractor, should develop a comprehensive work plan for developing an NVRF. This would include assembling all of the studies previously done in this area, identifying and resolving all outstanding issues, and selecting a contractor to develop the NVRF; and

(2) Work should commence on both the one-time clean-up of state data and the long-term modifications to state DMV systems and procedures. The first tasks include studying and evaluating the quality of state data and assembling a task force (perhaps including representatives of AAMVA, some state DMVs, and the Department of Transportation, if possible) to work in this area.

WORK PACKAGE: Coupon Production

PACKAGE DESCRIPTION: Provides for manufacture of sufficient coupons to permit efficient operation of the rationing program during each ration period.

NOVEMBER 1979 SUPPLEMENTAL: $5,265,000

BASIS OF ESTIMATE: Original Spring 1979 package assumed serialization of existing 4.8 billion coupons, little more than a 60-day supply. Serialization was eliminated by the Congress. This $5,265,000 assumed using the existing coupons, as is, and printing a 30-day added supply plus additional studies on the feasiblity of a non-intaglio check size coupon.

REVISED ESTIMATE: $20,500

BASIS OF REVISED ESTIMATE: EECA made the coupons obligations of the U.S. Government. The U.S. Treasury proposed that a new lithographed coupon be designed, and that it be multicolor, one side only, with sufficient security features and serialization to satisfy the requirements of the U.S. Secret Service.

SCHEDULE: Three months

Five and a half billion lithographed coupons can be produced within three months using the resources of the Bureau of Engraving and Printing, other Federal agencies and commercial printers.

RISKS:

(1) Lithography is more prone to counterfeiting than steel engraved (intaglio) currency-like coupons; and

(2) There are issues concerning quality control and security involved in the use of commercial bank note printers. It would be easier to control the quality if one or two Federal printers were used.

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COUPON PRODUCTION

COSTS:	Dollars in thousands
5.5 billion new lithographed, multicolor coupons, printed one side only with sufficient security features and serialization to satisfy the requirements of the U.S. Secret Service (Source: Bureau of Engraving and Printing)	$ 20,500

ASSUMPTIONS:

- o Assuming a total available supply of 92 billion gallons of gasoline, 4.6 billion coupons worth of gasoline will be available per quarter (coupons are in 5 gallon denominations)
- o 10% of gasoline is used by bulk purchasers, who don't need coupons
- o A 33% safety buffer in the first quarter and 20% in subsequent quarters is assumed.
- o Therefore, 5.5 billion coupons will be needed in the first quarter and 5.0 billion in subsequent quarters.

WORK PACKAGE: Coupon Distribution

PACKAGE DESCRIPTION: The pre-implementation effort involves design of a transportation system to move ration coupons from storage and production points through Inventory Control Points (ICP's) to Coupon Issuance Points (CIP's), assuring security, accountability and a short-notice supply and resupply capability. Data systems are not part of this package, but are included in the Management Information Systems package.

NOVEMBER 1979 SUPPLEMENTAL: $420,000

BASIS OF ESTIMATE: The November 1979 estimate was based in part on handling the coupons currently stored in Pueblo, Colorado plus other coupons that would have been produced.

REVISED ESTIMATE: $500,000

BASIS OF REVISED ESTIMATE: The revised estimate reflects the exclusive use of new produced, larger coupons and also has been escalated to include inflation.

SCHEDULE: Storage and transportation plans and procedures can be developed in four months.

RISKS: The risks include:

(1) Role of the Federal Reserve Banks. If they are able to provide and obtain the necessary secure space for use as Inventory Control Points and to manage coupon supply and resupply Operations using their current contract carriers, a workable distribution system would be available. If not, a new system must be developed using combinations of government and commercial facilities and employees.

(2) Role of U.S. Postal Service in the distribution system, if needed.

COUPON DISTRIBUTION SYSTEM

COSTS:	Dollars in Thousands
Define inventory control requirements	$ 50
Design a network of ICP's and CIP's	$ 200
Design a transportation network	$ 250
Total	$ 500

ASSUMPTIONS

DOE will designate coupon production facilities, inventory control points (ICP's) for intermediate storage, and coupon issuance points (CIP's).

Coupons will be standard check or dollarbill size.

Contracts with armored carriers and military transport facilities will be prepared in this work package.

NARRATIVE

The coupon distribution system must be capable of providing timely, secure, and economical delivery of coupons from storage and production points to coupon issuance points through storage and inventory control points. The system must provide high accountability and security levels and short notice resupply capabilities.

The transportation system must determine optimum and alternative supply routes based on the network of production, storage and control and issuance points. A combination of private armed carriers and Government transport facilities must be identified and contracted to assume responsibilities for each stage of the distribution cycle.

Activation plans for production facilities, ICP's, CIP's and transportation must be developed.

Inventory control requirements and procedures must be developed suitable for operation at the designated ICP's. The inventory control system development and implementation is included in the MIS package.

WORK PACKAGE: Management Information Systems (M.I.S.)

PACKAGE DESCRIPTION: This work package identifies information requirements and develops the management information systems needed to operate the rationing program.

NOVEMBER 1979 SUPPLEMENTAL: $3,262,000

BASIS OF ESTIMATE: Estimate included cost of systems development, but did not include machine time and telecommunications costs.

REVISED ESTIMATE:

Coupon Distribution and Inventory Management and Control System	$ 805,000
Rationing Rights Exchange Market Information System	330,000
Ration Banking System	3,080,000
Financial Management and Accounting System	250,000
Audit and Enforcement Management System	250,000
Entitlement Computation System	600,000
	$5,315,000

BASIS OF REVISED ESTIMATE: The revised estimate allows funds for inflation, machine time and telecommunications, and systems development in a greater number of major regional banks for the Ration Banking System.

SCHEDULE: The required system development, adaptation and readiness can be accomplished in twelve months.

RISKS: The major risks involved are:

(1) The cost estimate assumes use/modification of existing DOE systems for financial management and audit and enforcement; and

(2) The estimated systems development cost per bank of $50,000 for the Ration Banking System contains a great deal of uncertainty. Bank systems experts felt the estimate was probably in the correct cost range but could not rule out the possibility of much higher costs in some banks.

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MANAGEMENT INFORMATION SYSTEMS (MIS) WORK PACKAGE

Preimplementation Cost Estimates Cost Summary

	SYSTEM	ESTIMATED COST ($K)
A.	Coupon Distribution, Inventory Management And Control System	805 2/
B.	Ration Rights Market Information System	330 2/
C.	Ration Banking System	3,080 2/
D.	Financial Management And Accounting System	250 1/
E.	Audit And Enforcement Management System	250 1/
F.	Entitlement Computation System	600 2/
	TOTAL	5,315

1/ Assuming the use and/or modification of existing DOE systems
2/ Onsite contractors @$4K/labor month, offsite contractors @ $6K/Labor month

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MANAGEMENT INFORMATION SYSTEMS

General Assumptions

1. All ADP systems will be completely designed, developed, tested, debugged and then placed into a readiness maintenance state during the preimplementation period.

2. Estimated costs for development efforts include a 15% markup for machine time associated with the development effort. This may have to be increased. Minimum telecommunications costs for terminals are also included as separate items for applicable systems. This may be redundant due to estimating by other task groups for hardware requirements.

3. Estimated costs are based upon a 12-month development period.

4. Any data input forms associated with these systems are costed only for design and graphics preparation. Production costs are not included.

5. Existing DOE computer facilities or the facility used by the NVRF development effort will be available for development by MIS.

6. Existing DOE Generalized Data Base Management system software will be utilized for development efforts, where applicable. This may require purchase of additional copies of this software for different sites.

A. Coupon Distribution, Inventory Management and Control System

ASSUMPTIONS

1. Twenty-nine tentative candidate military bases (identified in 1975) will be used for Inventory Control Points (ICP's). Their storage capacity and security features were determined at that time to be adequate.

2. Algorithms have been developed, along with ADP software to integrate this process, which allocate the numbers of coupons to be delivered to each ICP based upon the area it serves.

3. Transportation methodologies, algorithms and ADP software to integrate this process have been developed which can be used to determine optimal delivery to Coupon Issuance Points (CIP's).

	ESTIMATED COST ($K)
1. Develop comprehensive requirements specifications	35
2. Develop general hardware and software design document	20
3. Survey and document availability of existing hardware and software that satisfies requirement	15
4. Develop detailed design and speicfication document	70
5. Develop and submit DOE system notification	5
6. Acquire telecommunications equpment for each ICP (4 ea. CRT and printer plus 1200 Baud modems)	60
7. Perform systems implementation	465
8. Develop system documentation	45
9. Develop training and operational procedures for ICP's and CIP's	40
10. Develop and install mobilization plan & procedures. Perform simulation of system function for delivery to ICP and to its CIP's.	50
TOTAL	805

B. Ration Rights Market Information System

ASSUMPTIONS

1. This system will be used to publish the rates at which ration rights are being exchanged upon the open market. Local media will be used to publish the BID/ASK rates.

2. The ADP system designed for this function will not specifically allow for any analysis of interregional flow of ration rights.

3. This work package excludes any systems required for DOE to enter the market as purchaser or seller of ration rights. Such systems are included in the Ration Rights Market work package.

		ESTIMATED COST ($K)
1.	Develop comprehensive requirements specifications	15
2.	Develop general hardware and software design documents	10
3.	Survey and document availability of existing hardware and software that satisfies requierments	10
4.	Develop detailed design and specifications document (including survey data collection forms)	35
5.	Develop and submit DOE systems notification	5
6.	Perform system implementation	200
7.	Develop system documentation	20
8.	Develop training and operational procedures for survey data collectors	10
9.	Develop and install mobilization plan and procedures. Perform simulation of system function for data collection, publication, etc.	25
	TOTAL	330

C. Ration Banking Systems

ASSUMPTIONS:

1. Existing software within the banking industry can be adequately and easily modified to perform the necessary functions required for rationing in approximately 54 major banks selected as regional processing centers.

2. This system supports the maintenance of both private ration rights accounts an redemption accounts.

ITEMS	ESTIMATED COST ($K)
1. Develop comprehensive requirements specifications	60
2. Develop general hardware and software design document	25
3. Survey and document availability of existing hardware and software that satisfies requirements	35
4. Develop detailed design and specification document	120
5. Perform system implementation (54 banking systems @50K per system)	2,700 1/
6. Develop system documentation	80
7. Develop training and operational procedures for Regional Processing Centers	25
8. Develop and install mobilization plan and procedures. Perform simulation of banking redemption functions.	35
TOTAL	3,080

1/ Performed by banking institution staff

NOTE: Excludes checking forms and materials needed at the end of preimplementation. These are included in the work package entitled Ration Check Production.

D. Financial Management and Accounting System

ASSUMPTIONS:

1. Existing systems within DOE, such as the Financial Accounting System, Budget and General Ledger System can be adapted to perform these functions.

ITEMS	ESTIMATED COST ($K)
1. Review existing system for usefulness and identify any modifications required to perform rationing related functions.	20
2. Perform required modifications	200
3. Develop additional documentation, training and operational procedures for modified process	30
TOTAL	250

E. Audit and Enforcement Management System

ASSUMPTIONS:

1. The existing case tracking system can be easily modified to perform this function.

ITEMS	ESTIMATED COST ($K)
1. Review existing system for usefulness and identify any modifications required to perform rationing related functions.	20
2. Perform required modifications	200
3. Develop additional documentation, training and operational procedures for modified process	30
TOTAL	250

F. Entitlement Computation System

This system will be used to compute all allotments and reserves during rationing.

ITEMS	ESTIMATED COST ($K)
1. Requirement Specification	60
2. General Hardware and Software Design	24
3. Survey of Existing Hardware and Software	18
4. Cost Benefit Study of Alternatives	48
5. Detail Design and Specifications	120
6. DOE Systems Notification	6
7. System Development	240
8. System Documentation	30
9. Training Materials	30
10. Installation	24
TOTAL	600

WORK PACKAGE: Ration Banking Operations

PACKAGE DESCRIPTION: The effort requires developing procedures for processing applications for ration rights and redemption accounts, to receive deposits to accounts, and to transmit rights and redemption checks to Regional Processing Centers (RPCs). Ration banking data systems development is not part of this package, but is part of the Management Information Systems package.

NOVEMBER 1979 SUPPLEMENTAL: $545,000

BASIS OF ESTIMATE: Estimate included all funds for selecting CIP's and RPC's and developing manual procedures and materials associated with ration banking operations.

REVISED ESTIMATE: $600,000

BASIS OF REVISED ESTIMATE: The revised estimate includes an addition for inflation.

SCHEDULE: Completion of this effort will require five months.

RISKS: The risks include:

(1) The ability to preidentify potential Coupon Issuance Points (CIP's), Inventory Control Points (ICP's), Regional Procesing Center (RPC's) and Transfer, Verification and Destruction Agents (TVD's) during preimplementation.

(2) Capacities of CIP's, ICP's, RPC's and TVD's to handle 5.5 billion coupons.

(3) Willingness of the American Banking Association to cooperate, especially if legislation or regulations require that all banking institutions be mandated to participate.

(4) Verification counting of coupons will be dependent on the availability of counting equipment such as currency counters, check counters and weighing scales.

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RATION BANKING OPERATIONS
(Includes Transfer, Verification, and Destruction)

COST:	Dollars in Thousands
o Banking Operations	
- Systems design	75
- Selecting participants, contracting	154
- Forms design, training/procedures manuals	56
- Fee structure, recoveries, and reimbursements	30
Subtotal	315
o Transfer, Verification and Destruction (TVD)	
- System design based on volume and geographic flows	60
- Selecting TVD entities, contracting	55
- Training/procedures manuals	85
- Definition of equipment, space, staffing, liabilities for TVD and ration banks	20
- Reimbursement guidelines for TVD agents	20
- Plan for notification and orderly commencement of TVD operations	45
Subtotal	285
Total	600

ASSUMPTIONS:

- o Perhaps 10,000 Ration banks will accept applications for ration rights accounts and redemption accounts, and they will accept check and coupon deposits to these accounts. They will not do any of the processing/verification.

- o 54 Regional processing centers (RPC's) will process all account applications and will receive all checks and deposit slips for processing.

- o TVD agents will pick up coupon deposits from ration banks, count and verify the bundles -- sending any corrections to the RPC -- and destroy the coupons.

WORK PACKAGE: State and Local

PACKAGE DESCRIPTION: The States have an active role in administering the rationing program, especially in operating a network of local boards for dispensing hardship allotments to the handicapped and others with special needs. States need to develop policies and procedures, during the preimplementation period, for setting up and administering the State ration reserves from which hardship allotments will be issued.

NOVEMBER 1979 SUPPLEMENTAL: $8,700,000

BASIS OF ESTIMATE: The initial estimate funded the preparation of State manuals and procedures as part of the State rationing plan development effort.

REVISED ESTIMATE:

NGA Contract	$ 550,000
Develop State Plans	7,433,000
Develp detailed State Policy and Regulations	691,000
Develop audit and enforcement guidelines and training	1,300,000
Other	900,000
	$ 10,874,000

BASIS OF REVISED ESTIMATE: An additional $2.2 million has been provided to reflect the greater role of States in setting the level of their overall ration reserves, and for additional plan development work. Actual staff recruitment and training costs for local board operations are not included as preimplementation costs, but are considered mobilization period costs.

SCHEDULE: The development of State plans and related activities will be completed in less than one year.

RISKS: The risks include:

(1) The assumption that all State offices and local boards can be established, staffed and trained during the 90-day mobilization period. This is an optimistic assumption given the possible large number of individuals and firms which may initially contact the State and local boards for hardship allotments and information.

(2) Specific delegation of authority to States as it will influence future program monitoring, audit, enforcement, and other Federal activities.

(2) Circumstances under which DOE should step in to manage an SRR or the entire State during rationing.

STATE AND LOCAL PREIMPLEMENTATION WORK PACKAGE

	Dollars in Thousands
I Cost	
o Prepare revised preimplementation work package management plan	$ 50
o Contract with National Governors Association (NGA)	550
o Survey State Capacity to Manage State Ration Reserve (SPR)	45
o Develop DOE and model state procedures to manage SPR system	200
o Develop SPR/Allocation Interface	65
o Develop forms	40
o Develop individual state plans	7,433
o Provide technical assistance to states	500
o Develop detailed DOE regulations for state and local programs	691
o Develop individual state audit and enforcement guidelines and training materials	1,300
TOTAL	$ 10,874

II. ASSUMPTIONS

1. Plans, regulations, guidelines, etc. are developed for 54 entities (the 50 States, District of Columbia and territories).
2. Start up and staffing costs and funding for State & local boards and local appeal boards will not be done until the 90-day mobilization period. Preimplementation efforts deal only with planning for these boards.
3. No state costs for the national vehicle file are included in this package.
4. Ninety plus percent of public information costs are paid by DOE.
5. Software and computer costs are not included in this package, but are in the MIS package.
6. Audit and enforcement personnel are borrowed, not hired.

7. Only one contract will be required between DOE and each State.

8. State forms will not be needed in the preimplementation period.

9. The National Governor's Association would closely coordinate the State role and serve as a forum as well as a vehicle of substantive program imput during preimplementation.

Overview of State Office and Local Board Roles

The gas rationing organization within a state would consist of three components:

- State Gas Rationing Office (SGRO)
- State Appeals Board (SAB)
- Local Gas Rationing Office

There would be one SGRO and one SAB per State. There would be at least one local office per county, but decisions on this would be up to the individual State.

The responsibilities of each is summarized below:

SGRO:

- Develop State plans, procedures, forms, etc.
- Administer public information program within the State.
- Manage the SPR.
- Provide administrative support to the local offices.
- Manage all training within the State.

SAB:

- Court of last review.
- Handles all non-procedural appeals that cannot be resolved at the local level, i.e., capricious actions by local board, unresolved hardship cases, additional requests from SPR, etc.

- Should review no more than 1% of appeals within the State.

LOCAL OFFICES:

- Initial point for all requests for additional coupons, other than non-receipt (handled by CIP's).

- Manages local public information effort.
- May handle initial appeal.

WORK PACKAGE: Allocation Interface

PACKAGE DESCRIPTION: Provides for the rationing program's interface with the DOE gasoline allocation system in such areas as supplier-purchaser relationships, distribution of gasoline to wholesale and retail customers and transfer of gasoline between low-demand and high-demand areas during rationing.

NOVEMBER 1979 SUPPLEMENTAL: $82,000

BASIS OF ESTIMATE: The November 1979 estimate provided funds to:

(1) Review and modify allocation regulations;

(2) Identify supply imbalances; and

(3) Prepare manuals and materials.

REVISED ESTIMATE: $300,000

BASIS OF REVISED ESTIMATE: The revised estimate includes funds for:

(1) Determining the impact of initial delivery certification;

(2) Expansion of the definition of agricultural priority;

(3) Proportionate adjustments to reflect states' historic use; and

(4) Inflation.

SCHEDULE: This effort will be completed in less than one year.

RISKS: None

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ALLOCATION INTERFACE

COSTS:	Dollars in thousands
Preimplementation regulation report on changes in 10 CFR, parts 211 and 212	75
Initial delivery certification study	50
States' historic use adjustments, allocation and rationing program	25
Competitive effects of surplus product distribution procedure and white market manipulation	25
Federal/State allocation interface procedure manuals	50
Oil industry procedures manual	50
Training plan material	25
TOTAL	300

ASSUMPTIONS:

Assumes costs are based on contractor effort to complete studies and to develop training manuals.

WORK PACKAGE: Ration Rights Market Operations

PACKAGE DESCRIPTION: The DOE will develop a standby capability to enter the ration rights market as a purchaser or seller of coupons, in case intervention is required, to stabilize the market. DOE will examine the requirements and develop the necessary procedures and materials. This package is supported by the rationing rights market information system being developed under the M.I.S. package.

NOVEMBER 1979 SUPPLEMENTAL: $664,000

BASIS OF ESTIMATE: The November 1979 estimate funded the design and development of wholesale and retail market intervention strategies.

REVISED ESTIMATE: $700,000

BASIS OF REVISED ESTIMATE: The initial estimate was increased for inflation.

SCHEDULE: This effort can be completed in five months.

RISKS: The impact and degree of hoarding and speculation in the ration rights market is unknown.

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RATION RIGHTS MARKET OPERATIONS

COSTS	Dollars in Thousands
	$700,000

ASSUMPTIONS

DOE will develop a buy-sell capability for ration rights, but DOE will not otherwise intervene in the exchange of rights among ~~individuals.~~ DOE will not require registration of ration rights transfer agents or reporting of actual transfers. (Although it has the right to do so).

NARRATIVE

DOE will establish an office, with appropriate systems and procedures, for buying and selling ration rights, if necessary, to stabilize the market.

In the preimplementation period, DOE needs to contract for detailed studies on coupon auctions including the timing and participation expected.

Decisions need to be made regarding the development of a "retail" purchase or sales presence throughout the country, for handling small end users. An alternative is for DOE to limit its involvement to large bulk auction purchases and sales, and to rely on private entities for "retail" transactions.

The $700,000 budget for preimplementation includes:

- policy analysis on alternative ration market entry options to supplement existing DOE studies on this subject.
- development of systems and procedures for bulk ("wholesale") purchase auctions and sale auctions.
- development of plans for a nationwide "retail" DOE presence for the purchase and sale of coupons to small end users.
- forms and procedures design and development
- staffing plans
- draft contracts with entities capable of carrying out buy/sell functions

WORK PACKAGE: Audit and Enforcement

PACKAGE DESCRIPTION: The work package will provide Federal and state procedures to ensure compliance by individuals, firms, banks, petroleum industry and others involved with rationing regulations. The M.I.S. work package includes development of an audit and enforcement case tracking system.

NOVEMBER 1979 SUPPLEMENTAL: $265,000

BASIS OF ESTIMATE: The November 1979 estimate provided funding for procedures, manuals and training materials.

REVISED ESTIMATE: $400,000

BASIS OF REVISED ESTIMATE: The revised estimate includes additional funds for inflation and to accommodate DOE's providing firms with allotments based on historical usage and for inflation.

SCHEDULE: This effort will be completed in less than one year.

RISKS: None

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STANDBY GASOLINE RATIONING PLAN
AUDIT AND ENFORCEMENT

COST:	Dollars in thousands
Draft Audit & Enforcement (A&E)	$ 90
Draft Training Materials	60
Prepare A&E procedures and define scope of audits	95
Establish liaison with states and local institutions	40
Prepare A&E guidelines for states	80
Prepare final training materials	35
TOTAL	$400

ASSUMPTIONS:

- Several opportunities for fraud and willful violation are apparent in the plan.
- Business may file base period consumption data but there will be no auditing of this data during the first year.
- Agriculture will be treated as a priority business and the definition of agriculture business will include most transportation, distribution and sales functions.
- The states will play a very active role in A&E activities of gasoline rationing.

DISCUSSION:

Funding for the audit and enforcement activity will be used for planning, policy development, and documentation of all activities necessary to bring this function to readiness for implementation. The objectives of the effort are to assure that individuals, firms, commercial banks, the petroleum industry and others comply with U.S. codes, gasoline rationing regulations, reporting requirements and DOE procedures, and to formulate cost effective strategies and procedures to maximize the prevention, detection and elimination of rationing violations. All procedures and training materials for auditing and enforcement will be developed during preimplementation and the first actual auditing would take place during the second year and would review the base period consumption data filed by businesses during preimplementation.

WORK PACKAGE: Adjustments and Appeals

PACKAGE DESCRIPTION: The function of this package is to develop procedures and design an organization to process appeals from individuals and firms concerning ration entitlements. The type of appeals which should be heard at various levels will be identified.

NOVEMBER 1979 SUPPLEMENTAL: $170,000

BASIS OF ESTIMATE: The November 1979 estimate allows for development of procedures to accommodate adjustments and appeals.

REVISED ESTIMATE: $200,000

BASIS OF REVISED ESTIMATE: The revised estimate allows for inflation to be added to the original estimate. The issue of whether there should be an appeal process during implementation was considered by the Task Force. The Task Force recommended against hearing appeals during pre-implementation since no allotments will be made during this period.

SCHEDULE: Development of appeal procedures will require five months.

RISKS: None

3/4/80

STANDBY GASOLINE RATIONING PLAN
ADJUSTMENTS AND APPEALS

COST:	Dollars in Thousands
Define, draft, and publish procedures and regulations and consider public comments	$ 30
Define scope of States' authority and general guidelines and standards	130
Design and develop forms for application for review decisions made in the appellate proces	40
TOTAL	$200

ASSUMPTIONS:

Assumes one level of appeal at the State level beyond the Local Appeals Board.

NARRATIVE:

This package projects the types of appeals, exceptions, and other requests for administrative relief that would be filed during gasoline rationing. It develops the procedures for disposition of the various types of actions that would be filed. It attempts to specify the types and scope of matters that will be reviewed at the State and local levels.

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WORK PACKAGE: Public Information

PACKAGE DESCRIPTION: The work package involves the development of advertising and public relations materials for informing the public about gasoline rationing implementation and program changes. There will also be an effort to advise firms to file base period consumption data during the pre-implementation period.

NOVEMBER 1979 SUPPLEMENTAL: $150,000

BASIS OF ESTIMATE: The November 1979 estimate included only a minimal public information pre-implementation effort, and did not request resources for the costs associated with state public information efforts which DOE is required to fund. Also, the estimate assumed free instead of paid advertising.

REVISED ESTIMATE:

Federal efforts	$ 964
State efforts	4,050
	$5,014

BASIS OF REVISED ESTIMATE: The revised estimate envisions a coordinated Federal/state effort. Federal funds will be directed at preparing masters of media announcements, press kits, brochures, etc. The DOE would fund state development of materials related to specific state media plans and television/radio/publications materials. A public information campaign will be directed toward firms during this time period also.

SCHEDULE: Can be completed in less than one year.

RISKS: It is essential that a public information program be designed carefully in order to ensure public participation without resulting in panic.

3/4/80

PUBLIC INFORMATION WORK PACKAGE

I. COST SUMMARY

	Dollars in Thousands
A. Federal Costs	
o Masters for media announcement, features, etc.	$ 150
o Manuals	625
o Editorial development	50
o Spanish translation	25
o Newspaper special insert	37.5
o Regional "core" book	75
o Rosters	.5
o Billboards	.5
o Press kit	.5
TOTAL Federal	$ 964.0
B. State Costs (Federally Funded)	
o Preparation of Media plan ($25,000 per state entity)	$1,350
o Contracting television radio, publications work ($50,000 per state entity)	2,700
TOTAL State	$4,050
TOTAL Public Information Cost	$5,014

WORK PACKAGE: Federal Organization

PACKAGE DESCRIPTION: This work package plans the Federal organization required to direct and manage rationing mobilization and operation.

NOVEMBER 1979 SUPPLEMENTAL: $176,000

BASIS OF ESTIMATE: The initial estimate included funds for documenting DOE responsibilities, organization, functions and personnel requirements during mobilization and operation phases of rationing. Interagency agreements to provide specific skill requirements from other Federal agencies will be prepared.

REVISED ESTIMATE: $200,000

BASIS OF REVISED ESTIMATE: The initial estimate was increased for inflation.

SCHEDULE: Completion of this effort will take about seven months.

RISKS: The DOE may not be able to secure, through Federal details, the required number of Federal employees with the appropriate skills.

3/4/80

STANDBY GASOLINE RATIONING PLAN
FEDERAL ORGANIZATION

COST:	Dollars in thousands
Develop issue papers on federal organization assumptions plans, etc.	$ 23
Develop Federal role/organization plan in cooperation with OMB & Office of Personnel Management	77
Negotiate skill requirements and number of positions to be included in interagency agreements	10
Select private personnel firms to provide temporary employees	29
Finalize letters of intent with Federal agencies and private personnel firms	19
Draft final documents	31
Finalize all documents	11
TOTAL	$ 200

ASSUMPTIONS:

- o Cost estimates do not include acquisition of office space and facilities and personnel training
- o DOE will be able to detail personnel with required skills during the mobilization and operational phases of gasoline rationing.

DISCUSSION:

During the preimplementation phase, the Federal organization and staffing for future phases - readiness maintenance, implementation, operation and termination - will be determined. The work package description in the Preimplementation Program Plan provides an essentially complete description of the tasks to be undertaken.

The Preimplementation Program Plan calls for review and assessment of two options for providing the required federal workforce for implementation and operation of the rationing system - details from other Federal agencies and contingency agreements with private temporary personnel resource firms to identify and recruit qualified personnel.

The use of employees of other Federal agencies on detail will require the development of Interagency Agreements (if reimburseable) or Memoranda of Understanding (if nonreimburseable). Other agencies are unlikely to willingly provide large numbers of their staff to this effort; it is important that strong support from the White House be forthcoming during the preimplementation phase if DOE is to successfully achieve its staffing goals through details.

The work package may also review and assess preimplementation negotiation with the U.S. Office of Personnel Management (OPM) for authority to tender direct offers of employment on Emergency Indefinite appointments under specified conditions. With this approach, DOE would negotiate the conditions (Presidential notice of intent to implement rationing), qualifications, pay rates, etc., with OPM during the pre-implementation phase, and would receive direct hire authority from OPM. Then, when the emergency condition occurs, DOE can automatically begin to hire the necessary staff immediately.

WORK PACKAGE: Program Management and Systems Integration Contractor

PACKAGE DESCRIPTION: This work package involves overall project management during the pre-implementation effort by Federal employees and coordination of all work packages to be accomplished by a systems integration contractor.

NOVEMBER 1979 SUPPLEMENTAL: $162,000

BASIS OF ESTIMATE: Initial estimate included only Federal personnel to oversee project effort, but did not fund effort to manage each work package. The initial estimate also did not provide any funding for a systems integration contractor.

REVISED ESTIMATE:

Program Management	$ 4,635,000
Systems Integration Contract	7,581,000
	$12,216,000

BASIS OF REVISED ESTIMATE: Funding for program management is based on 110 Federal staff years commencing upon funds availability. The estimate for the systems integration contract assumes contractor personnel will coordinate the coupon distribution, ration banking, check production, MIS, coupon production, NVRF, allotment planning and readiness maintenance work packages.

SCHEDULE: The systems integration contractor will be required until the products of all other work packages are brought to a state of readiness.

STANDBY GASOLINE RATIONING PLAN

PROGRAM MANAGEMENT/SYSTEMS INTEGRATION CONTRACT

COST:	Dollars in Thousands
Program Management	
Develop procedures to manage rationing program during implementation and operation phases	$ 200
Federal Employment 110 staff years @$40,300/yr	4,435
TOTAL	$ 4,635
Systems Integration Contract	
20 technical personnel @ $40,000/yr	800
40 professional personnel @ $80,000/yr	3,200
Materials, travel, etc.	700
Funds for subcontracting for specific systems integration expertise	2,881
TOTAL SYSTEMS INTEGRATION CONTRACT	$ 7,581
TOTAL PROGRAM MANAGEMENT/SYSTEM INTEGRATION CONTRACT	$12,216

STAFFING REQUIREMENTS:

	FEDERAL EMPLOYEES	SYSTEMS INTEGRATION CONTRACTOR
Allotment Planning	2.0	4.0
Ration Check Production	1.0	5.0
Ration Check Issuance/NVRF	5.0	10.0
Coupon Production	1.0	5.0
Coupon Distribution	1.5	1.0
Ration Banking Operations	1.0	3.0
Federal Organization	2.0	-
State and Local Roles	25.0	-
Allocation Program Interface	1.0	-
Ration Rights Market	2.0	-
Adjustments and Appeals	1.0	-
Audit & Enforcement	1.0	-
MIS	3.0	7.0
Public Information	15.0	-
Program Management	30.5	20.0
Readiness Maintenance	2.0	5.0
High Technology (Alternative Systems)	4.0	-
Subtotal	98.0	60.0
Rationing Policy	2.0	-
Accelerated Rationing	10.0	-
TOTAL	110.0	60.0

ASSUMPTIONS:

- o Concept is a dedicated project office supported by a systems integration contractor, intra-Departmental and detailed personnel from other Federal agencies.
- o Federal staffing requirements is 110 full-time permanent positions, supplemented by additional 15-20 detailees on front end.
- o 30 of the Federal positions will be in the field for liaison and support of state activities.
- o Excluding field staff, actual management of the program will require federal/contractor mix of about 140 positions.
- o The systems integration contractor will provide additional program management resources specifically directed at coordination of the overall effort.

DISCUSSION:

A project office will be established to provide overall management during the preimplementation phase. Most of the 110 positions required are for management of specific work packages as shown in the detail above. Funding is also provided for design of a project control system and development of procedures for managing the rationing program.

The systems integration contractor will be responsible for coordinating the work of the eight work packages which interface with each other. In an undertaking of this magnitude, a systems integration contractor will (1) provide overall project planning integration, coordination, tracking, control, and reporting, (2) prepare progress reports, (3) assess work package progress, (4) coordinate contractor activities within a work package, (5) evaluate impacts of policy changes, and (6) recommended product acceptance/rejection.

WORK PACKAGE: Readiness Maintenance

PACKAGE DESCRIPTION: This work package identifies and develops procedures for maintaining in a state of readiness all files, systems, materials, regulations, etc., during the period when pre-implementation is completed and mobilization has not yet begun.

NOVEMBER 1979 SUPPLEMENTAL: $276,000

BASIS OF ESTIMATE: The initial estimate was based on reviewing all work packages to identify readiness maintenance requirements and organizational responsibilities, to develop a monitoring system and to develop procedures for documenting and performing maintenance.

REVISED ESTIMATE: $300,000

BASIS OF REVISED ESTIMATE: Inflation is added to the initial estimate.

SCHEDULE: Readiness maintenance planning functions will be completed in six months.

RISKS: None

3/4/80

STANDBY GASOLINE RATION PLAN
READINESS MAINTENANCE

COSTS:	Dollars in Thousands
Review work package activities interfaces and schedules	$ 100
Prepare readiness maintenance phase action plan	200
Total	$ 300

ASSUMPTIONS:

Plans must be made for activities between the preimplementation phase and mobilization.

NARRATIVE:

This work package is aimed toward identifying Government personnel, facilities, and funding sources required to execute the readiness maintenance phase. The objectives are to identify in the other work packages activities that must be continued from the preimplementation phase initiated during the readiness period to ensure that mobilization will be completed within 90 days.

Procedures must be developed for maintaining and updating policy and program changes, the National Vehicle Registration File and other data bases and information systems.

Plans must be developed for readiness maintenance of public information activities printing, distribution and storage facilities.

WORK PACKAGE: Alternative System Design Concept Proposals

PACKAGE DESCRIPTION: The purpose of this package is to obtain several alternative system designs for coupon-less gasoline rationing systems which eliminate the labor-intensive functions of the coupon/check based system and provide better accountability functions. These systems should be implementable within a three to five year timeframe.

NOVEMBER 1979 SUPPLEMENTAL: $ 0

REVISED ESTIMATE:

Three parallel efforts to develop design concepts based on modern technology	$5,000,000

BASIS OF REVISED ESTIMATE: The current plan contains many drawbacks related to handling large volumes of paper-based negotiable instruments. The movement of industry toward electronic methods suggests the viability of more modern techniques of rationing. In accordance with OMB Circular A-109, at least three system concepts will be funded.

SCHEDULE: The studies should provide viable system design concepts in one year.

RISKS: None

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HIGH TECHNOLOGY
ALTERNATIVE SYSTEM DESIGN CONCEPTS

COST:	Dollars in Thousands
Review of system concepts and preparation of Program Opportunity Notice	500
Selection of three or more system design concepts proposals	4,000
Evaluation of design concepts	500
TOTAL	5,000

ASSUMPTIONS

Modern technology is leading toward vastly reduced paper handling and better accountability functions. As long range gasoline rationing plan could benefit from these developments especially in the areas of electronic funds transfer techniques.

NARRATIVE

During the development of the current rationing plan several alternatives to the check/coupon system were investigated, including credit card systems, windshield stickers, online computerized rights verification systems and many others. These alternatives all appeared to have severe problems related to fraud prevention, privacy violation, reliability, risk, cost, or long lead times, especially in an environment where gasoline rationing was considered to be a short term, emergency operaton.

The coupon based system will put a major burden on financial institutions, government functions, and retail sales outlets because of the paper handling involved and because the movement of industry toward electronic funds transfer reduces its paper handling capacity. DOE should assess these new technologies in order to be ready to develop a more sophisticated system compatible with modern techniques being developed by banking and other industries.

In conformance with OMB Circular A-109 describing major system acquisition procedures, DOE will develop a Program Opportunity Notice describing the functional capabilities of a gasoline rationing system. Proposals will be solicited for design concepts of high technology systems with the following capabilities.

The system should be implementable in a three to five year time frame, with consideration given to a phase in period compatible with othefsystems impleme in a one to three year time frame.

The system should be competitive in cost with the short term systems or should demonstrate significant cost/benefit tradeoffs.

The system should be capable of handling some 150 million individuals purcha 100 billion gallons of gasoline per year. Potential for fraud, privacy viol and misallocation of rights must be controllable to acceptable levels. Registration procedures must be capable of handling large turnovers (50 million changes per year), in a timely and accurate manner. System reliability and backup procedures must provide acceptable operating conditions in all areas of the continental United States. Procedures for exchanging ration rights for other benefits (e.g., money) must be incorporated into the system. Public acceptance of the mechanisms for using the system must be considered -e.g., visible status of ration accounts, reasonable audit trails, compatible procedures in all locations). Management information on gasoline use distribution should be available.

These systems designs will be evaluated for the possibility of further development and demonstration projects.