

**Executing the National Plan to Develop Technologies That
Reduce the Global Use of Petroleum-Based Fuels in Transportation and to
Boost Knowledge-Based Industries Focusing on this Field**

Resolution 2790, 30.1.2011

Resolved:

Further to Government Resolution No. 1354 of February 7, 2010, to establish a national effort to develop technologies that reduce the global use of petroleum-based fuels in transportation (hereafter: petroleum substitutes) and to boost knowledge-based industries focusing on this field, and further to the work carried out by the steering committee which was instructed to act on the matter and the work of the scientific committee for mapping research on the subject of fuel substitutes appointed by the President of the Israeli National Academy of Scientists – it is hereby resolved to adopt the recommendations of the steering committee as follows:

- 1) To execute the national plan (hereafter: the Plan) between 2011 and 2020, the main principles of which are:
 - a. **Tools to promote the field of petroleum substitutes in the world**, as outlined in Addendum B to this Resolution, including: plans and agreements for cooperation; international promotion and marketing of Israeli industry; advancement in the political arena; and the Prime Minister's Prize for Global Innovation in the Field.
 - b. **Tools to simplify bureaucracy and strengthen entrepreneurship and industry in the field of petroleum substitutes**, as outlined in Addendum C to this Resolution, including: service hotlines for companies; encouraging investments in companies backed with venture capital; providing assistance to establish pilot facilities; and assimilating innovative petroleum substitutes for usage in Israel.
 - c. **Tools to strengthen scientific and applied research and training in the field of petroleum substitutes**, as detailed in Addendum D to this Resolution, including: allocations for research and development and a designated plan that will be formulated and operated by the academic planning and allocation committee (hereafter: PAC).
- 2) **The program's goals include:**
 - a. **Making advances in the field through Israeli technology and industry**
Expanding the investment in industrial companies active in the field of petroleum substitutes in Israel by the cumulative amount of at least NIS 4

billion between 2011 and 2015, and at least NIS 10 billion between 2016 and 2020, and through cooperation with Israeli companies on industrial and infrastructure projects around the world.

b. Creating a center of knowledge in Israel:

- i. Reaching an amount of over 100 start-up companies and industrial R&D projects and over 20 global Israeli companies working in Israel in the field of petroleum substitutes by the end of 2016.
- ii. Reaching an amount of over 100 scientific and academic research groups working in Israel in the field of petroleum substitutes by the end of 2016.

3) Steering committee and administration of the program

- a. A senior official will be appointed to administer the program (hereafter: the program manager) in the organizational framework of the Prime Minister's Office, and in accordance with the instructions in the Law of Public Service (Appointments) of 1959, as well as the rules that the program manager determines are acceptable.
- b. A steering committee will be appointed to advance the program under the leadership of the program manager, with the participation of the directors general of the following offices: Industry, Trade and Labor; National Infrastructures; Transportation and Traffic Safety; Science and Technology; Environmental Protection; Agriculture; and Foreign Affairs; as well as the Director of Budgets in the Ministry of Finance; the Chairman of the PAC; the Chief Scientist of the Ministry of Industry, Trade and Labor; the Head of the Administration for the Development of Weapons and Technological Infrastructure; and the Head of the National Economic Council; or a representative on their behalf with the rank of Deputy Director General at the very least.
- c. The steering committee will determine secondary goals for the program as necessary, and will present the program's progress towards meeting its goals to the Ministerial Committee for Renewable Energies once a year.
- d. In June 2012, the steering committee will present a report on the execution of the program and its progress towards meeting its goals to the Socio-Economic Cabinet (hereafter: the Cabinet). Beginning in 2015, the steering committee will submit an annual allocation plan every year for the following year to the Cabinet for its approval and will present the Cabinet with the multi-year goals for the continuation of the program.
- e. In order to facilitate the ongoing work of the program manager, including salaries for advisers, the Ministry of Finance will allocate NIS 3 million

per year to the Prime Minister's Office for each of the years between 2011 and 2020.

- f. The steering committee will follow-up on the implementation of the program and will approve any changes to it. The program manager will propose changes in the program to the steering committee as necessary. The program will be reviewed using follow-up research under the guidance of the steering committee.
- g. Criteria for determining inclusion in the field of petroleum substitutes:
 - i. The program manager, together with the Chief Scientists of each of the relevant ministries, will determine criteria that will define which of the initiatives submitted to the office for assistance or funds from the program can be considered part of the field of petroleum substitutes (hereafter: the criteria). The aforementioned assistance or funding will only be given to those projects that meet the criteria and are considered a part of the field of petroleum substitutes.
 - ii. It should be emphasized that nothing aforementioned in any way detracts from the authorities granted to the Chief Scientist of the Ministry of Industry, Trade and Labor, the Council for Higher Education (hereafter: the Council) and the PAC, nor the independent academic considerations of institutes for higher education and research funds.

4) Budget and positions

- a. The total cost for executing the program between 2011 to 2020 is NIS 1.5 billion, as detailed in Addenda B through D below:
- b. All budgets for the program will be provided through designated job positions in the Prime Minister's Office.
- c. In order to execute the program, the following job positions will be allocated and manned in coordination with the Civil Service Commission, and in accordance with the laws and regulations related to the civil service. Upon completion of the program, the aforementioned job positions will be eliminated.
 - i. Four positions will be assigned to the Prime Minister's Office, one of which will be a senior position. Three of these positions will be funded by the Ministry of Finance; one by the Prime Minister's Office.

- ii. Two positions will be assigned to the Ministry of Industry, Trade and Labor. Of these positions, one will be funded by the Ministry of Finance; the second will be funded by the Ministry of Industry, Trade and Labor.
 - iii. The Ministry of National Infrastructures will be assigned one position. Half will be funded by the Ministry of Finance; and the second half will be funded by the Ministry of National Infrastructures.
 - iv. The Ministry of Transportation will be assigned one position. Half will be funded by the Ministry of Finance; and the second half will be funded by the Ministry of Transportation.
- d. To make reading the data easier, the budgetary sources, as well as their expected use in 2011 have been detailed in the tables that appear in Addendum A below. It should be noted that the compulsory formula is the formula that appears in Addenda B through D below.

ADDENDUM A

The following are the main tables that include the budgetary sources and the uses expected for during the year 2011, by offices. Note that these tables are for readability only, and that the binding version is the version that appears in Appendices B to D.

- a. Table of budgetary resources by year and office

סה"כ	Foreign Affairs	Agriculture	MOST	Environment	MNI	Academy PAC	MOITAL	Treasury	Total
80	0.25	0.5	1.25	0.5	1	3	33.5	40	2011
120	0.25	1	1.75	1	2	10.5	43.5	60	2012
150	0.25	1	1.75	1	2	12	57	75	2013
150	0.25	1	1.75	1	2	12	57	75	2014
150	0.25	1	1.75	1	2	12	57	75	2015
170	0.25	1	1.75	1	7	12	62	85	2016
170	0.25	1	1.75	1	7	12	62	85	2017
170	0.25	1	1.75	1	7	12	62	85	2018
170	0.25	1	1.75	1	7	12	62	85	2019
170	0.25	1	1.75	1	7	12	62	85	2020
1500	2.5	9.5	17	9.5	34	109.5	565	750	Total

b. Upcoming budgetary uses table for 2011 by offices

Total	Academia	R&D grants	Pilot facilities	Investment encouragement	Service hot-lines	International Plan	Co-op and PMO prize	Program management	
8							5	3	PMO
57		9		40	2	2	4		MOITAL
5	5								PAC
5		2	3						MNI
1		1							Environment
2.5		1					1.5		MOST
1		1							Agriculture
0.5						0.5			Foreign Affairs
80	5	14	3	40	2	2.5	10.5	3	Total

c. Upcoming budgetary uses table for 2012 by offices

Total	Academia	R&D grants	Pilot facilities	Investment encouragement	Service hot-lines	International Plan	Co-op and PMO prize	Program management	
16							13	3	PMO
70.5		18.5		40	2	2	8		Moital
16.5	16.5								VATAT
9		4	5						MNI
2		2							Environment
3.5		2					1.5		MOST
2		2							Agriculture
0.5						0.5			Fore-ign Affairs
120	16.5	28.5	5	40	2	2.5	22.5	3	Total

c. Upcoming budgetary uses table for each of the years 2013 to 2015 by offices

Total	Academia	R&D grants	Pilot facilities	Investment encouragement	Service hot-lines	International Plan	Co-op and PMO prize	Program management	
30							27	3	PMO
84		25		40	2	2	15		Moital
19	19								PAC
9		4	5						MNI
2		2							Environment
3.5		2					1.5		MOST
2		2							Agriculture
0.5						0.5			Foreign Affairs
150	19	35	5	40	2	2.5	43.5	3	Total

d. Upcoming budgetary uses table the each of the years 2016 to 2020 by offices

Total	Academia	R&D grants	Pilot facilities	Investment encouragement	Service hot-lines	International Plan	Co-op and PMO prize	Program management	
30							27	3	PMO
94		35		40	2	2	15		MOITAL
19	19								PAC
19		4	15						MNI
2		2							Environment
3.5		2					1.5		MOST
2		2							Agriculture
0.5						0.5			Foreign Affairs
170	19	45	15	40	2	2.5	43.5	3	Total

Addendum B: Tools to advance the global field of petroleum substitutes

1) Plans and agreements for international cooperation:

- a. The program manager will be charged with the responsibility of cooperating with the Chief Scientist of the Ministry of Industry, Trade and Labor to submit an international plan to influence the reduction of global use of petroleum products in transportation (hereafter: the international plan) to the steering committee for their approval. The plan will be based, inter alia, on:
 - i. Strengthening international cooperation in the field of petroleum substitutes, based on existing cooperation agreements and existing multi-national funds.
 - ii. Establishing new plans and agreements for cooperation that contribute to achieving the program's goals.
- b. In order to implement international plans, the following budgets will be allocated:
 - i. The Ministry of Finance will allocate NIS 5 million to the Prime Minister's Office in 2011, NIS 13 million in 2012, and NIS 27 million for each year between 2013 and 2020.
 - ii. In addition, and in accordance with what is required, the Ministry of Industry, Trade and Labor will allocate an additional NIS 4 million from its budget in 2011, NIS 8 million in 2012, and NIS 15 million for each year between 2013 and 2020.

- c. As part of the international plan, an emphasis will be placed on the following:
 - i. Strengthening cooperation with countries in which a significant increase in the number of motor vehicles is expected over the next several years, such as China and India, as well as with countries that are world leaders in the field of petroleum substitutes in technological industries and scientific research.
 - ii. Strengthening the cooperation between Israeli companies and other bodies and multi-national companies working in fields related to petroleum substitutes and with research and development institutions that are world leaders in the field of petroleum substitutes. This should be done in a manner that makes it easier for academic research groups and Israeli companies to integrate into the actions carried out by these bodies.

2) International promotion and marketing of Israeli industry:

- a. The director general of the Ministry of Industry, Trade and Labor will be charged with the responsibility of working to promote and market the activities of Israeli industry in the field of petroleum substitutes to the world, including organizing a periodic international conference and demonstrating petroleum substitute technologies in the world (hereafter: international marketing).
- b. In order to implement activities related to international marketing, the Ministry of Finance will allocate NIS 1.5 million per year for each year between 2011 and 2020 to the Ministry of Industry, Trade and Labor. The Ministry of Industry, Trade and Labor will allocate an additional NIS 0.5 million per year.

3) Politically promoting the program:

- a. The director general of the Ministry of Foreign Affairs will be charged with the responsibility of acting to promote the program to policy makers in the world.
 - b. In order to implement activities related to politically promoting the program in the Ministry of Foreign Affairs, NIS 0.25 million will be allocated from the Ministry of Foreign Affairs budget every year. The Ministry of Finance will allocate an additional NIS 0.25 to the Ministry of Foreign Affairs every year.
- 4) In order to implement activities related to politically promoting the program, the **Prime Minister's Prize for Innovation in Petroleum Substitutes** will be created.

- a. With the goal of increasing awareness around the world of new technologies and initiatives in the field of petroleum substitutes, and in order to promote the program's goals, the government is adopting the Prime Minister's plan to establish an annual prize celebrating global, research and business innovations in the field of petroleum substitutes.
- b. In order to fund the prize, the Ministry of Finance will allocate NIS 0.75 million per year to the Ministry of Science and Technology for each year between 2011 and 2020, and the Ministry of Science and Technology will allocate an addition NIS 0.75 million per year.
- c. The process of selecting winners and determining criteria for selecting winners will be carried out by the Ministry of Science and Technology, in cooperation with the program manager, and will be presented to the steering committee within 180 days of this Resolution being approved. In this framework, the possibility of increasing the prize money through donations will be examined.

Addendum C: Tools to simplify bureaucracy and strengthen Israeli entrepreneurship and industry in the field of petroleum substitutes

1) Service hotlines for companies

- a. In order to make the bureaucratic processes companies in the field of petroleum substitutes are required to undergo more accessible and simpler, the director general of the Ministry of Industry, Trade and Labor will be instructed to establish a service hotline for companies to provide information about the program, as well as to assist them in submitting requests for the approvals and permits required for their activities (hereafter: the service hotline).
- b. Companies active in or those intending to be active in the field of petroleum substitutes can obtain assistance from the service hotline in submitting requests for those approvals and permits required by law from government bodies, in order to facilitate their activities in the field of petroleum substitutes. In accordance with the aforementioned and at the request of the governmental body charged with providing permits and approvals, the service hotline will be able to attach to the requests its professional opinion, which will be formulated with the assistance of a team of experts in industrial technologies and regulation related to the field of petroleum substitutes (hereafter: the team of experts).
- c. It should be emphasized that the activities of the service hotline in no way detract from the authorities granted to the governmental bodies

charged with providing permits and approvals with regard to their considerations regarding providing the required approvals and permits. The assistance provided by the service hotline to the aforementioned companies and governmental bodies will be performed in accordance with the procedures to be determined by the relevant governmental bodies.

- d. In the event that the program manager believes that there is a central issue in the field of petroleum substitutes which the existing procedures to provide permits and approvals does not satisfactorily cover, the program manager will present the issue to the steering committee.
- e. In order to fund the service hotline's activities, the Ministry of Finance will allocate NIS 1.5 million per year for each year between 2011 and 2020 to the Ministry of Industry, Trade and Labor, and the Ministry of Industry, Trade and Labor will allocate an additional NIS 0.5 million per year.

2) Program to encourage investments in companies backed with venture capital

- a. With the goal of expanding the sources of funding available to companies backed with venture capital working in the field of petroleum substitutes, and with the goal of leveraging the government investment through cooperation with private-sector investment and industrial bodies in Israel and abroad, a team will be appointed that will formulate a plan to encourage investments by investment bodies in companies backed with venture capital in the field of petroleum substitutes (hereafter: the plan to encourage investments), in accordance with the following principles:
 - i. Government funding will increase the desirability of investing in the field of petroleum substitutes.
 - ii. It will be examined whether specialization in the field among investment bodies should be encouraged.
 - iii. Contracts will be made vis-à-vis the investment bodies.
 - iv. Contracts will be for projects that are clearly in the field of petroleum substitutes, and they will be selected by a process yet to be determined.
 - v. The program will not include the establishment of new investment bodies by the government.
- b. The team will be headed by the Chief Scientist of the Ministry of Industry, Trade and Labor, with the participation of the program

manager, the general comptroller of the Ministry of Finance, the Director of Budgets in the Ministry of Finance and the head of the National Economic Council, or representatives on their behalf. It will include other representatives as agreed upon between the team leader and the program manager. The team will work to implement the aforementioned goals, and will do so no later than August 1, 2011.

- c. To fund the plan to encourage investments, for the duration of the plan authorization to spend a total amount of NIS 400 million will be provided, according to the following division:
 - i. The Ministry of Finance will provide the Ministry of Industry, Trade and Labor authorization to spend a total amount of NIS 150 million; and for each year between 2011 and 2020, an amount (in cash) of NIS 15 million per year.
 - ii. In addition to this sum, the Ministry of Industry, Trade and Labor will provide authorization to spend from its budget a total amount of NIS 250 million; and for each year between 2011 and 2020, an amount (in cash) of NIS 25 million. There may be budgetary deviations from this amount from year to year in accordance with implementation.

3) Assistance for establishing pilot facilities in petroleum substitutes

- a. The director general of the Ministry of National Infrastructures will be charged with the responsibility of initiating a program to advance funding for establishing pilot facilities to prove technological and business feasibility in the field of petroleum substitutes, and should do so while paying attention to the effects and repercussions on the environment and the energy market in Israel.
- b. The director general of the Ministry of National Infrastructures will be charged with the responsibility of formulating recommendations for procedures that will make it easier for companies working in the field of petroleum substitutes to get the approvals required by the various offices to establish pilot facilities and conduct experiments in the field of petroleum substitutes that are limited in time and scope. It should be emphasized that the aforementioned formulation of recommendations for procedures in no way detracts from the authorities granted to the government bodies charged with determining procedures in this regard, and the determination of procedures and approvals will be conducted by the relevant government bodies.
- c. In order to encourage investments to establish pilot facilities, the Ministry of Finance will allocate up to NIS 3 million to the Ministry of National Infrastructures in 2011; NIS 5 million per year for each year between

2012 and 2015; and NIS 10 million per year for each year between 2016 and 2020. In addition, the Ministry of National Infrastructures will allocate NIS 5 million from its budget for each year between 2016 and 2020.

4) Assimilating innovative petroleum substitutes for use in Israel

The directors general of the Ministry of National Infrastructures and the Ministry of Transportation will be charged with the responsibility of initiating the assimilation in Israel of innovative petroleum substitutes, in the event that they are found to be suitable. This should be done while paying attention to the effects and repercussions on the environment and energy market in Israel, with the goal of using this initiative as the basis for international cooperation and as a tool to influence international markets.

Addendum D: Tools to strengthen scientific and applied research and training in the field of petroleum substitutes

- 1) With the goal of increasing the sources of funding for academic and applied research in the field of petroleum substitutes:
 - a. In 2011 NIS 14 million will be allocated; in 2012, NIS 28.5 million; and for each year between 2013 and 2020, NIS 35 million will be allocated per year. These amounts will be used to fund assistance programs and research and development in the field of petroleum substitutes in the various offices, as follows:
 - i. To fund programs operating in the framework of the work of the Chief Scientist of the Ministry of Industry, Trade and Labor, the Ministry of Finance will allocate NIS 5.5 million in 2011, NIS 9 million per year for each year between 2012 and 2015 and NIS 14 million per year for each year between 2016 and 2020. In addition, the Ministry of Industry, Trade and Labor will allocate from their budget NIS 3.5 million in 2011, NIS 9.5 million in 2012, NIS 16 million per year for each year between 2013 and 2015, and NIS 21 million per year for each year between 2016 and 2020.
 - ii. To fund programs operating in the framework of the work of the Chief Scientist of the Ministry of National Infrastructures, the Ministry of Finance will allocate NIS 1 million in 2011 and NIS 2 million per year for each year between 2012 and 2020. In addition, the Ministry of National Infrastructures will allocate NIS 1 million in 2011 and NIS 2 million per year for each year between 2012 and 2020.
 - iii. To fund programs operating in the framework of the work of the Chief Scientist of the Ministry of Science and Technology, the

Ministry of Finance will allocate NIS 0.5 million in 2011 and NIS 1 million per year for each year between 2012 and 2020. In addition, the Ministry of Science and Technology will allocate NIS 0.5 million in 2011 and NIS 1 million per year for each year between 2012 and 2020.

- iv. To fund programs operating in the framework of the work of the Ministry of Environmental Protection, the Ministry of Finance will allocate NIS 0.5 million in 2011 and NIS 1 million per year for each year between 2012 and 2020. In addition, the Ministry of Environmental Protection will allocate NIS 0.5 million in 2011 and NIS 1 million per year for each year between 2012 and 2020.
 - v. To fund programs operating in the framework of the work of the Ministry of Agriculture and Rural Development, the Ministry of Finance will allocate NIS 0.5 million in 2011 and NIS 1 million per year for each year between 2012 and 2020. In addition, the Ministry of Agriculture and Rural Development will allocate NIS 0.5 million in 2011 and NIS 1 million per year for each year between 2012 and 2020.
- b. To fund the designated program to advance research and academic activity, which the government asks the Council and the PAC to run, in light of the program's goals and targets, and conditional on the existence of the terms mentioned below, an amount of NIS 5 million in 2011, NIS 16.5 million in 2012 and NIS 19 million per year for each year between 2013 and 2020 will be allocated in the following manner:
- i. The government turns to the PAC with the request that it allocate to the program NIS 3 million in 2011, NIS 10.5 million in 2012 and NIS 12 million per year for each year between 2013 and 2020.
 - ii. At the same time, the Ministry of Finance will allocate an additional budget to the PAC in the amount of NIS 2 million in 2011, NIS 6 million in 2012 and NIS 7 million per year for each year between 2013 and 2020.
- 2) With the goal of leveraging government investments in the program, the program manager will be charged with the responsibility of reviewing the possibility of increasing the scope of assistance for academic and applied research in the field of petroleum substitutes through donations and joint initiatives, while consulting with the Council and the PAC.