

DOCKET

11-IEP-1E

DATE _____

RECD. Mar 18 2011

IMPERIAL IRRIGATION DISTRICT

INTEGRATED ENERGY POLICY REPORT DATA SUBMITTAL

2011

DOCKET # 11-IEP-1E TRANSMISSION PLANNING

David L. Barajas PE
Imperial Irrigation District
333 E. Barioni Blvd
Imperial CA 92251
dlbarajas@iid.com
(760) 482-3450

TABLE OF CONTENTS

I. INTRODUCTION 1

II. IID's TRANSMISSION EXPANSION PLAN 2

 A. Update on IID's Transmission Expansion Plan 2

 B. The Imperial Valley Study Group 2

 C. California Transmission Planning Group 3

 D. IID's Approved Transmission Projects 3

 1. Midway to Bannister Transmission Project 4

 2. Dixieland-IV Transmission Project 5

 3. Palo Verde-North Gila 500 kV Transmission Project and North Gila to Highline 230 kV Transmission Line 6

 E. IID's Development activities to enhance the import and export capabilities, from IID to Southern California. 7

 1. Path 42 rating increase. 7

 2. Path 42 Upgrade - Reconductoring Project. 7

 3. Highline Substation to El Centro Switching Station (ECSS) Transmission Project 7

 4. Imperial Valley Substation (IV Sub) to El Centro Switching Station (ECSS) Transmission Project 8

 5. Midway – Devers 500 kV Project 9

 6. Southwestern Loop Project 9

 F. Desert Southwest Transmission Line Project 10

 G. Transmission Corridors 10

III. RESPONSES TO DATA REQUESTS 11

 Questions: 11

 1. The transmission owner's most recent transmission expansion plan. 11

 2. Existing Facilities 13

 3. Planned transmission upgrades 13

 4. Maintenance or construction that could impact transfer capabilities. 15

 5. Transmission upgrades after December 2020. 16

 Transmission Corridor Needs: 16

I. INTRODUCTION

Description of Imperial Irrigation District's Bulk Electric System

The Imperial Irrigation District ("IID") owns and operates electric generation, transmission and distribution facilities. Its generating facilities include fossil fuel-fired and hydroelectric plants. IID's generating facilities have a total net capability (summer season) of 670 MW.

In summer 2010, the IID experienced a peak demand of 1004 MW and the projected peak demand for summer 2011 is expected to be 996 MW.

IID's transmission system consists of approximately 1,394 miles of 500-kV, 230-kV, 161-kV and 92-kV lines. The backbone of IID's transmission system is at 161kV (310 miles).

IID owns 16 transmission substations with a total capacity of 2,401,497 kVA, 83 distribution substations with a total capacity of 1,904,494 kVA, and power plant substations with a total capacity of 772,312 kVA.

The District's transmission system is interconnected to Western Area Power Administration's (WAPA) system at Blythe and Pilot Knob; to the Arizona Public Service's (APS) system at Yucca substation; to Southern California Edison's (SCE) system at the Mirage/Devers substation at the northwest corner of the IID's service area; and to San Diego Gas & Electric's (SDG&E) system at Imperial Valley substation.

The IID tie-lines are as follows:

<i>From</i>	<i>To</i>	<i>Metering Point</i>	<i>Voltage (KV)</i>	<i>Path Rating (MW)</i>	<i>Import/Export</i>	<i>Length (Mi)</i>
Niland	Blythe	Blythe	161	275	Import/Export	60.8
Pilot Knob	Knob	Knob	161			2.1
ECSS	IV Sub	IV Sub	230	239	Import/Export	18.1
Ramon	Mirage	Mirage	230	600 (E) 100 (I)	Export/Import	0.05
Coachella Valley	Devers	Devers	230			20.0
Yucca 161kV	Yucca 69kV	Yucca	69	74	Import/Export	0.0

II. IID's TRANSMISSION EXPANSION PLAN

For nearly two decades, IID has been at the forefront of promoting renewable energy in the Imperial Valley. Nearly twenty years ago, IID upgraded its transmission system by building a collector system to accommodate the interconnection of new geothermal generation and export this renewable energy to SCE. Today, IID wheels approximately 550 MW of geothermal energy from Imperial Valley into the California Independent System Operator (CAISO) balancing authority area.

IID remains committed to the development and export of renewable energy from the Imperial Valley to other parts of California. IID recognizes the importance of renewable energy development to the Imperial Valley to assist California meeting its renewable energy goals. IID has been and will remain a strong proponent of renewable energy as a means of meeting California's energy needs and preserving our environment. It looks forward to working with its neighbors in California to enhance the transmission system in order to facilitate the export of renewable energy to the rest of California.

IID recognizes that promotion of renewable energy projects in the Imperial Valley boosts local economic development and brings much-needed, good-paying jobs to a region of California that desperately needs them. IID looks forward to continuing to work with the State of California and other stakeholders to promote renewable energy goals in the Imperial Valley.

A. Update on IID's Transmission Expansion Plan

IID has been at the forefront of promoting renewable energy transmission for many years. The Salton Sea geothermal resource area lies right in the heart of Imperial Valley. This is one of the largest geothermal resources in North America. Approximately seventeen years ago, IID upgraded its transmission system in order to interconnect new geothermal generation that was being developed in the Imperial Valley and export these renewable energy resources to SCE. At that time, IID upgraded its transmission system by constructing a double-circuit 230 kV "collector system" across the entire span of the IID service area – called the KN/KS lines – to interconnect new geothermal generation that was being developed in the Imperial Valley. The KN/KS lines were built in excess of the needed capacity since IID anticipated additional renewable generation development. Therefore, IID has excess capacity on its collector system today that can be used to wheel renewable generation. At present, IID wheels approximately 550 MW of geothermal generation into the CAISO Balancing Authority

B. The Imperial Valley Study Group

IID was a major participant in the regional transmission planning effort known as the Imperial Valley Study Group (IVSG). The IVSG was a voluntary planning collaborative made up of regional stakeholders that met to develop a phased plan for the development of the necessary transmission to export up to 2,200 MW of renewable generation from the Imperial Valley region. The IVSG identified various transmission reinforcements that needed to be made to IID's transmission system in order to facilitate the export of renewable energy out of the Imperial Valley. These reinforcements have been included in IID's transmission planning and incorporated into IID's Transmission Expansion Plan

(TEP). IID developed its TEP to accommodate IID's expected load growth and to provide for transmission of Imperial Valley renewable generation to neighboring transmission systems. IID continues to facilitate the development and transmission of renewable energy in Imperial Valley. As of February 2011 there are approximately 3,090 MW of generation from 43 proposed generation projects in the IID queue. Most of this is from renewable generation projects (3,005 MW). IID is currently processing these interconnection requests and will continue to be one of the nation's leaders in the transmission of renewable energy.

C. California Transmission Planning Group

IID is a member and active participant in the California Transmission Planning Group (CTPG). CTPG is a forum for conducting joint transmission planning and coordination in transmission activities to meet the needs of California consistent with FERC Order 890. CTPG's membership includes California investor-owned utilities, publically-owned utilities, along with participation from the CAISO and Western Area Power Administration. Several of IID's proposed transmission projects were studied by CTPG and identified as high or medium potential. Through its activities with CTPG, IID will be able to identify necessary upgrades to its transmission system to facilitate the export of renewable energy from the Imperial Valley to the load centers of California.

D. IID's Approved Transmission Projects.

IID continues to demonstrate its commitment to the development and export of renewable energy in the Imperial Valley. IID is working closely with its neighboring balancing authorities to develop new transmission projects to enhance the export of renewable energy to other parts of Southern California and Arizona.

IID is moving forward with three transmission projects that have been approved by the IID Board of Directors. Those three projects are:

- a 230 kV transmission line from the Midway substation to a new Bannister substation;
- a 230 kV transmission line from the Imperial Valley (IV) substation to Dixieland substation; and
- A joint transmission project proposed by APS, Salt River Project (SRP), Wellton Mohawk Irrigation and Drainage District (Wellton Mohawk) and IID for a 500 kV transmission line from the Palo Verde (PV) Hub to the North Gila substation near Yuma, Arizona.

These three projects will significantly increase the capability of IID to export renewable energy to its neighbors in Southern California and Arizona.

1. Midway to Bannister Transmission Project

On February 19, 2008, the IID Board of Directors approved the construction of the first phase of a 35-mile transmission project to connect IID's Midway substation to a new Bannister substation. The 230 kV Midway-Bannister line will run right through the heart of the Salton Sea geothermal resource area and provide easy access to IID's transmission system for renewable generation being developed in this area. The line will connect IID's KN/KS line that runs on the east side of the Salton Sea to IID's 161 kV L-line that runs on the west side of the Salton Sea. It will provide a low-cost, reliable 1200 MW transmission path for renewable energy to flow to the north into SCE or to the west into San Diego Gas and Electric (SDGE).

The IID Board of Directors has already approved the right-of-way acquisition on the 35-mile Midway to Bannister line. IID has already completed the environmental studies and met all CEQA requirements for this project.

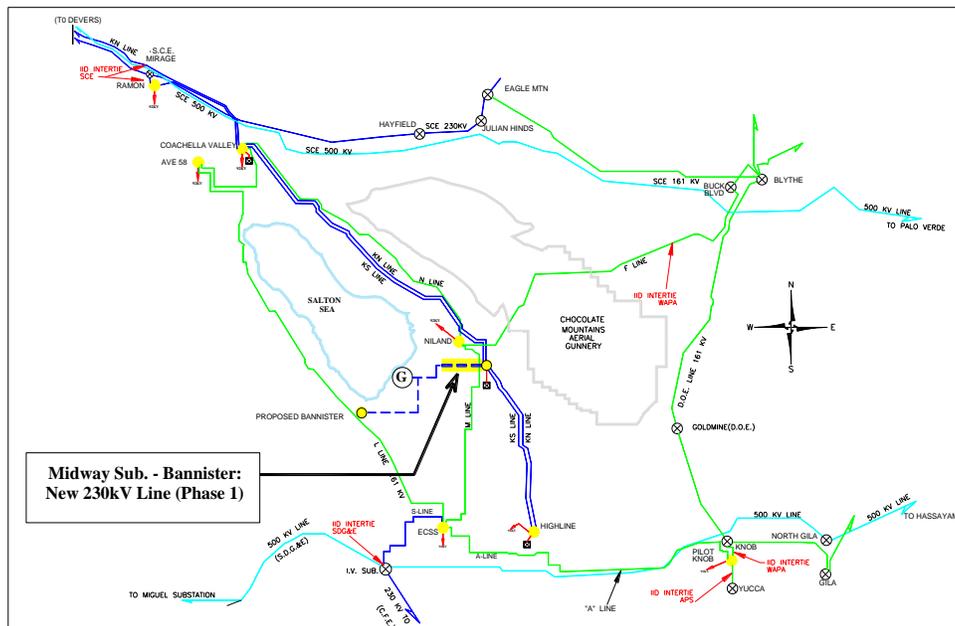
The estimated cost of this project is \$74 million. The project will be constructed in four phases.

The Phase 1 of the Midway to Bannister Transmission Project consists of building 8.5 miles of 230KV transmission line between IID's Midway and the proposed Bannister Substations. The project also includes an expansion/upgrade of the existing IID Midway Substation, and a 3.5-mile generator tie to the planned Hudson Ranch Geothermal Facility. The first phase will connect the existing Midway substation to the Hudson Ranch gen-tie line. The Phase 1 project has been approved by the IID Board of Directors and is currently under construction. The expected in-service date of the Midway Bannister Transmission projected Phase 1 is second quarter 2011.

Phase 2 consists of extending the Midway to Bannister line from the Hudson Ranch gen-tie west by an additional 5.5 miles. This project will be constructed to accommodate the interconnection of IID's first transitional interconnection cluster. Anticipated in-service date for Phase 2 is year-end 2013.

Phases 3 and 4 consist of extending the Midway to Bannister line for an additional 16 miles to the proposed Bannister substation and the construction of the Bannister substation. Eventually, the Midway to Bannister line will create a transmission path from Midway substation to El Centro substation through the Southwestern Loop described in Section D.6 below. This portion of the project is contingent upon additional anticipated generator interconnections and has not yet received final approval by IID's Board of Directors.

The following drawing depicts the Midway to Bannister transmission project.

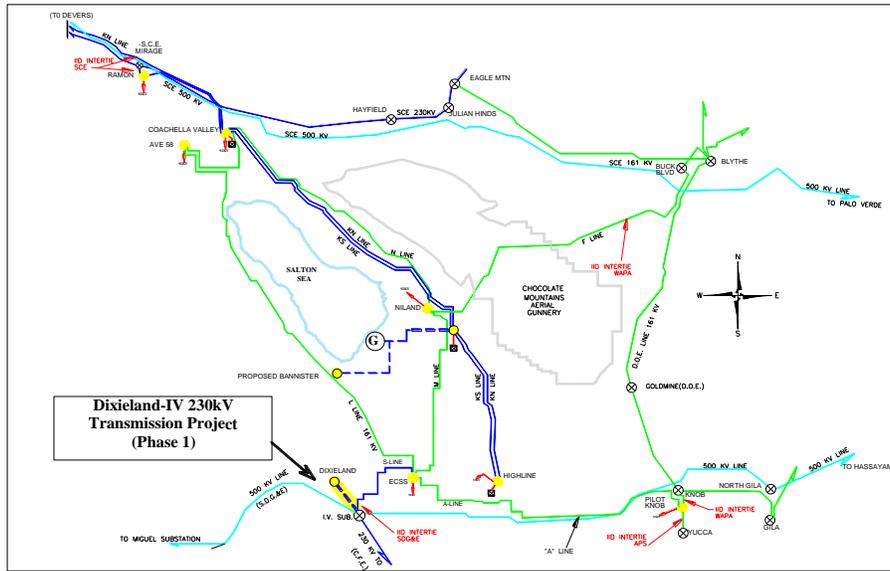


2. Dixieland-IV Transmission Project

The Dixieland-IV project was approved by the IID Board of Directors in November 2006. This is an eight-mile line that will connect the Dixieland substation to the IV substation. It will increase the export capability from IID to SDGE by approximately 300 MW. The Dixieland-IV transmission project is a prime example on how a low-cost alternative can bring substantial new transmission capacities for the export of renewable resources from the Imperial Valley. IID believes that entities such as SDGE can utilize these capabilities to export renewable energy to meet their needs.

The estimated cost of the project is \$20 million and the estimated completion date is March 2012. Development activities have been completed and engineering and construction activities are underway. The projected in-service date for this line is first quarter 2012.

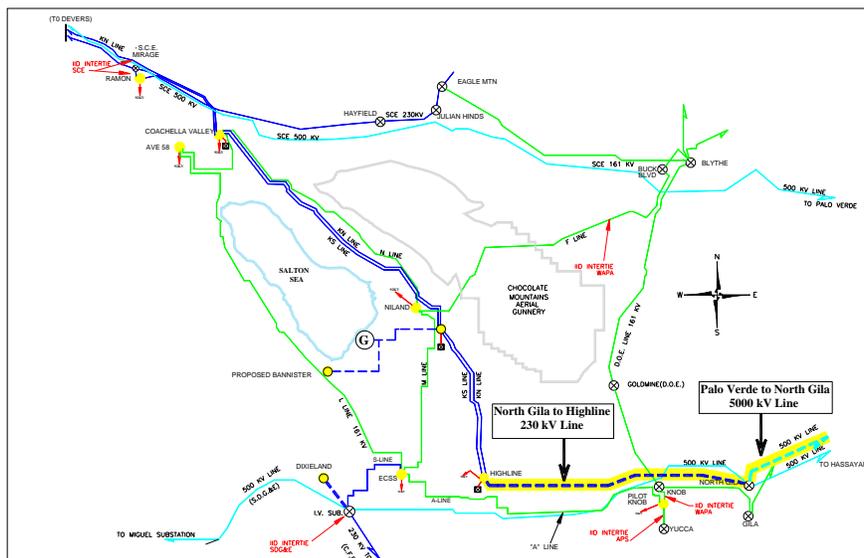
The following drawing depicts the IV-Dixieland interconnection project.



3. Palo Verde-North Gila 500 kV Transmission Project and North Gila to Highline 230 kV Transmission Line

On January 14, 2008, the Arizona Corporation Commission (ACC) approved a new 500 kV transmission line from the PV Hub to the North Gila substation near Yuma, Arizona. This 117-mile transmission line is a joint project between IID, APS, SRP and Wellton Mohawk and will be capable of transporting up to 1200 MW of energy. This line will eventually be extended to IID's Highline substation. The line has been permitted by the Arizona Corporation Commission. IID's estimated investment in this project will be \$70 million and it has an expected in-service date of 2014.

The following project depicts the PV-North Gila project and the proposed North Gila-Highline project.



E. IID's Development activities to enhance the import and export capabilities, from IID to Southern California.

IID is working closely with neighboring balancing authorities to develop new transmission projects to enhance its import/export capability from IID to Southern California. IID is an active participant in the California Transmission Planning Group. IID as a transmission owner and through its Open Access Transmission Tariff (OATT) performed a system impact and facility studies needed to assess the interconnection of new generation resources to IID's transmission grid. The following projects are the major projects identified as needed to facilitate the exports of renewable resources up to Southern California Edison (SCE) and San Diego Gas and Electric (SDG&E).

1. Path 42 rating increase.

WECC Path 42 includes two transmission lines from IID's Coachella Valley substation to SCE's Devers substation and IID's Ramon substation to SCE's Mirage substation. IID and SCE are in the process of re-rating Path 42. It is anticipated that the re-rating will increase the rating of Path 42 from 600 MW to approximately 800 MW. The Path 42 re-rating does not require any transmission upgrades. The increased rating is based upon bringing the rating of Path 42 up to the thermal rating of the transmission lines. The current Path 42 rating is 600 MW but the transmission lines can accommodate a rating of up to 800 MW. IID and SCE are in the process of completing the re-rating studies and will submit them to WECC for approval. It is anticipated that the increase in Path 42 rating to approximately 800 MW can be completed in the 4th quarter 2011. This will provide an additional 200 MW of export capability from IID's system into SCE's system.

2. Path 42 Upgrade - Reconductoring Project.

Path 42 reconductoring project consist of the reconductoring of Path 42 between IID's Coachella Valley Substation and SCE's Mirage Substation. The 20 miles of existing double circuit single-conductor 230 kV transmission line between Coachella Valley Substation and Mirage will be bundled into two conductors per phase. Thus, the total incremental increase in export capability on Path 42 could be approximately 800 MW – from 800 MW to up to 1600 MW.

3. Highline Substation to El Centro Switching Station (ECSS) Transmission Project

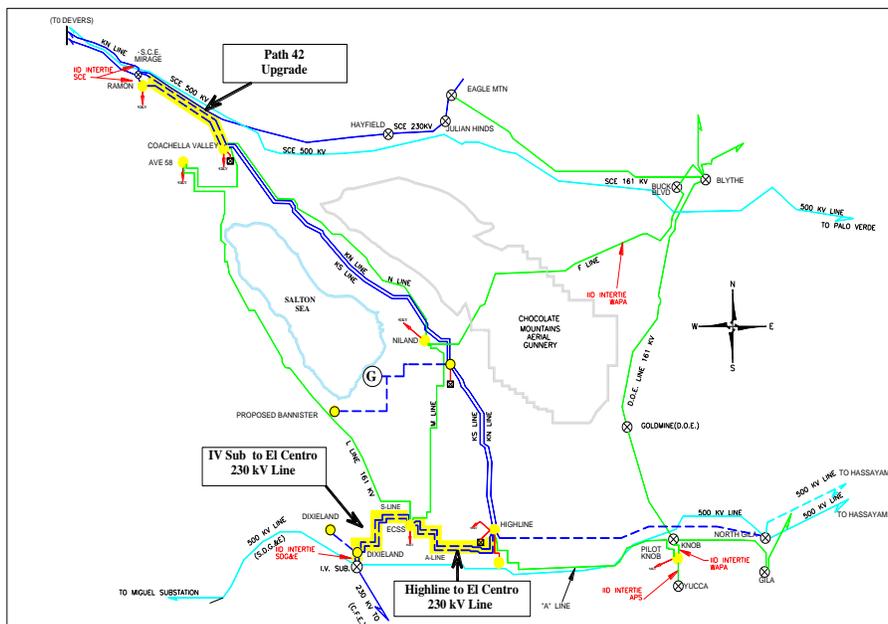
The Highline to El Centro Switching Station transmission project consist of an upgrade of approximately 19 miles of a double-circuit 161 kV and 92 kV transmission line to 230 kV. The double-circuit 230 kV line will interconnect IID's Highline Substation to IID's El Centro Switching Station. This project will, in conjunction with the IV Substation to El Centro project described below, will create a 230 kV transmission path between IID's two interties with the CAISO, from the Imperial Valley substation (SDGE) to Mirage substation (SCE). This project is being constructed to accommodate the interconnection of IID's first transitional interconnection cluster. Anticipated in-service date for the Highline to El Centro project is year-end 2013.

4. Imperial Valley Substation (IV Sub) to El Centro Switching Station (ECSS) Transmission Project.

The Imperial Valley Substation to El Centro Switching Station transmission project consists of building a 230 kV switching station (IID IV Sub) adjacent to Imperial Valley Substation and upgrading the existing Imperial Valley Substation to El Centro Switching Station 230 kV single circuit line to double circuit. The new 230 kV double circuit line will loop in and out the proposed IID IV Sub. The environmental permitting is nearly complete. This project is being constructed to accommodate the interconnection of IID's first transitional interconnection cluster. Anticipated in-service date for the Highline to El Centro project is year-end 2013.

The construction of this project will require the existing Imperial Valley to El Centro 230 kV line to be out of service during the construction phase. Potential schedules through the IID-SDG&E interties will be reduced in both directions to the import/export limit of the Imperial Valley to Dixieland intertie to approximately 300 MW.

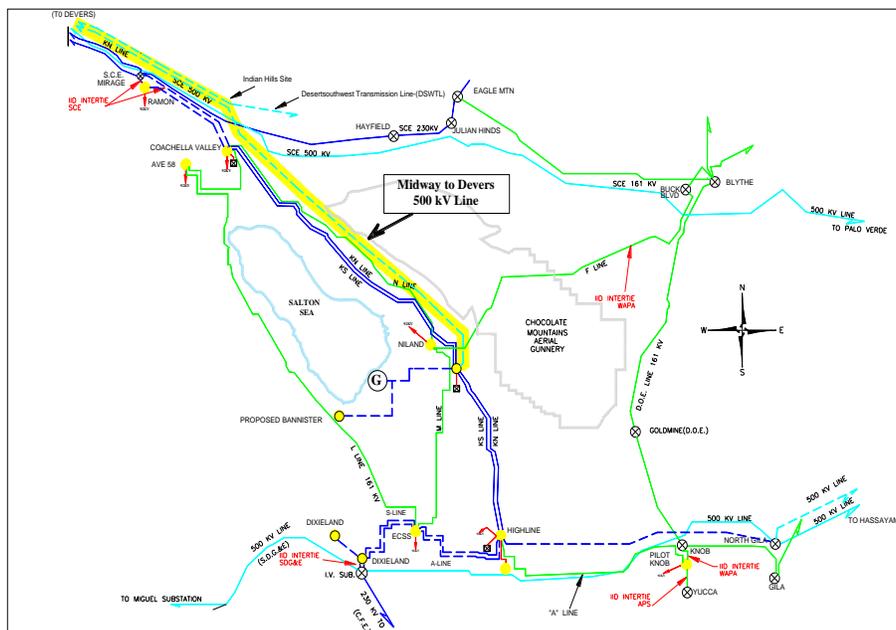
The following drawing depicts these three projects.



5. Midway – Devers 500 kV Project

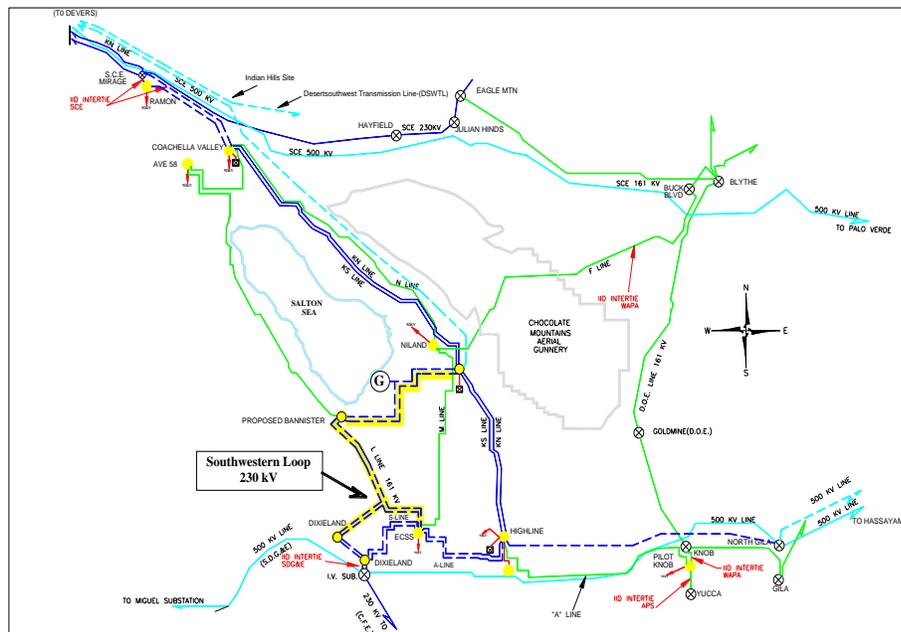
IID is planning to build a 90-mile 500 kV transmission line that will connect the IID system in the Salton Sea area to the CAISO balancing authority area near Palm Springs.

The proposed project, known as the Midway - Devers 500 kV Transmission Project (Midway-Devers), could provide approximately 1200 to 1600 MWs of capacity from IID's Midway substation to SCE's Devers substation. The Midway-Devers project will consist of a 60-mile single-circuit 500 kV line that will connect IID's Midway substation to a site approximately five miles northwest of IID's Coachella Valley Substation (Indian Hills site). At the Indian Hills site the line will intercept the proposed Desert Southwest 500 kV transmission line and continue an additional 30 miles west to SCE's Devers Substation. The proposed commercial operation date is 2017.



6. Southwestern Loop Project

The Southwestern Loop project consists of an upgrade to IID's L-Line between the proposed Bannister substation and the El Centro Switching Station. The existing 161 kV line will be upgraded to a double-circuit 230 kV line. One circuit will connect the proposed Bannister Substation to El Centro Switching Station. The other circuit will be looped in and out of the Dixieland Substation and connect to El Centro Substation. In addition, the Dixieland to IV Substation line will be upgraded to a double-circuit 230 kV line. Once completed, the Southwestern Loop will create a double-circuit 230 kV ring in the southern portion of IID's service territory that will facilitate the injection of renewable generation into the IID transmission system. This Southwestern Loop project is contingent upon additional anticipated generator interconnections.



F. Desert Southwest Transmission Line Project

Caithness Energy has been working on the development of a transmission project for the interconnection of renewable and natural gas generation projects proposed in the Blythe, CA area to the CAISO and IID Systems. IID has also been a participant in this project in order to import energy from Arizona to serve its load, as well as to export renewable energy from the Imperial Valley into the CAISO. The Desert Southwest Transmission Line (DSWTL) is a double-circuit 500 kV transmission line with both circuits beginning at the existing Devers substation area. Both circuits have the option of looping in and out of the proposed SCE Colorado River Substation and ultimately terminating in a proposed Blythe Substation. The line will be built in phases. The first 8-mile phase from Blythe to Colorado River Substation has a 2013 COD. One of the circuits on the phase from Devers to the Coachella Valley area will be constructed by IID as part of IID's planned Devers – Midway 500 kV project with an anticipated commercial operation date of 2017.

The DSWTL has completed its CEQA and NEPA analysis and permitting. The federal rights-of-way have been secured.

G. Transmission Corridors

IID's transmission expansion plan utilizes existing utility corridors and the upgrade of IID facilities located on IID's existing rights-of-way. At the present time IID does not foresee the need for new utility corridor designations.

III. RESPONSES TO DATA REQUESTS

Questions:

1. The transmission owner's most recent transmission expansion plan.

This plan should describe in detail all of the transmission facilities over 100 kV that the transmission owner needs to:

a. Meet applicable reliability and planning standards.

i. Ave 58 Substation:

Install a new 161/92 kV 225 MVA Auto-Transformer in parallel with the existing 161/92kV 125 MVA Auto-Transformer.

Estimated Completion Date: April 2012

ii. Dixieland Substation to Imperial Valley Substation 230kV line project:

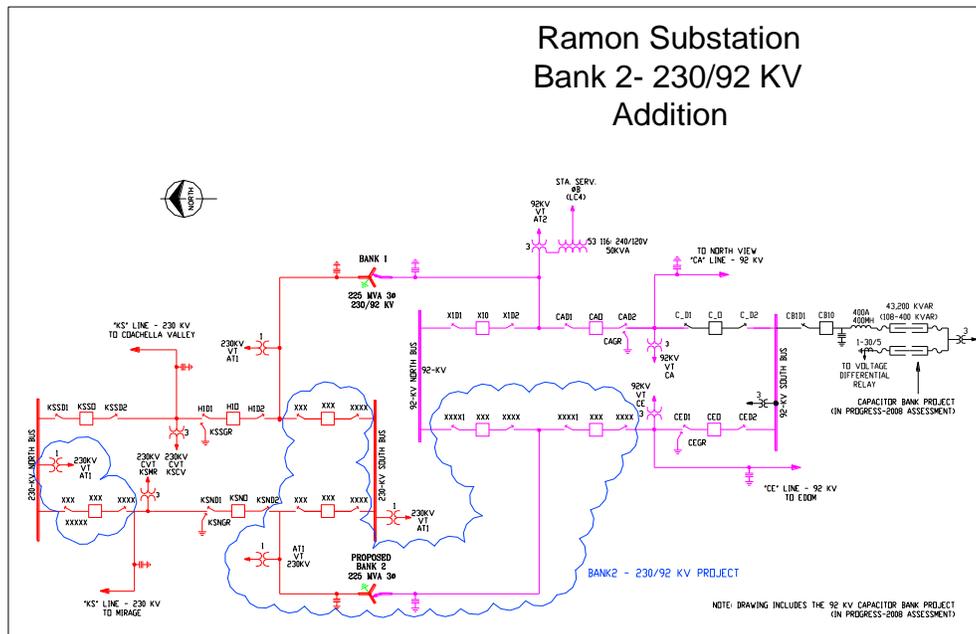
See Subsection II.D.2 above.

iii. Ramon Substation 230/ 92kV Addition:

Install a second 230/92 kV 225 MVA Auto-Transformer In parallel with the existing 230/92 kV 225 MVA Auto-Transformer.

Estimated Completion Date: 2012

The following diagram depicts the proposed Bank addition:



- d. Meet state policy goals such as RPS or once-through cooling goals.

See IID's transmission expansion plan in Section II above. IID's transmission system is situated in one of the key renewable resource areas in California. The focus of the IVSG was the export of renewables from the Imperial Valley. IID's transmission expansion plan was developed as a result of the IVSG report.

2. Existing Facilities

- a. A description of the transfer capabilities for transmission lines or transmission paths delivering electric power **into** the electric transmission system owner's grid.
 - i. The description shall include the size (for example, megavolt ampere [MVA] or megawatt [MW]) length of the line or lines included in the path and the substations to which the line connects.

See Section I above.

- b. A description of the transfer capabilities for the bulk transmission lines or bulk transmission paths limiting the delivery of electric power **within** the transmission owner's grid.
 - i. The description shall include the size (MVA, MW) and length of the line or lines included in the path and the substations to which the line connects.

L line 161 kV line

The 161 kV L line interconnects IID's southern service area to the northern service area and consists of a single circuit wood pole structure interconnecting El Centro switching station (South) to Ave 58 substation and from Ave 58 substation (North) to Coachella Valley substation (North). This line has a thermal rating capacity of 165 MW and total line length is 99 miles.

3. Planned transmission upgrades (including both upgrades to existing facilities as well as new facilities) that are expected to be operational between January 2011 and December 2020, including those affecting both imports into a transmission owner's grid and those affecting the transmission owner's ability to move energy within its transmission network:

- a. Descriptions of the upgrades including costs, benefits, maps, and the MW impact of the upgrades on transfer capabilities.

Path 42 Upgrades – See Subsection II.E -1,2 above.

Imperial Valley Substation (IV Sub) to El Centro Switching Station (ECSS)
Transmission Project – See Subsection II.E-4 above

- b. A detailed description of the upgrade's benefits including:

- i. The effect of the transmission facilities on the transmission owner's ability to comply with state mandated electric policy goals such as renewable energy requirements, complying with State Water Resources Control Board policies for phasing out power plants that use once-through cooling, or eliminating or reducing local capacity requirements.

See IID's transmission expansion plan set forth in Section II above. IID's transmission system is situated in one of the key renewable resource areas in California. The focus of the IVSG was the export of renewables from the Imperial Valley. IID's transmission expansion plan was developed as a result of the IVSG report.

IID's transmission expansion plan is a systematic reinforcement of IID's existing transmission system that will create a robust network to facilitate the export of renewables from the Imperial Valley to more than one load center. The IID transmission expansion plan can be implemented in a phased approach that utilizes existing facilities and rights-of-way in a cost-effective manner with minimal environmental impacts.

- ii. Any increase in access to renewable energy. Where possible, list the location (region, competitive renewable energy zone) from which the energy can be imported.

Since IID's transmission system is situated in one of the key renewable resource areas of California, IID's transmission expansion plan has been primarily driven by the need to export renewable energy from the Imperial Valley to other parts of California and into Arizona. The focus of the IVSG was the export of renewables from the Imperial Valley. The transmission plan of service set forth in IID's transmission expansion plan was developed as a result of the IVSG with the express intent of facilitating the export of renewable from the Imperial Valley. Therefore, IID's transmission upgrades are an integral element to accessing Imperial Valley renewables to help the state meet its RPS goals.

- iii. Any increase in the ability to import energy into transmission-constrained areas. Where possible, describe the area (local capacity area, sub-area) and potential reductions in local capacity requirements and the need to commit such capacity

Most of the point-to-point transfer needs identified in the sections above are necessary for export of renewable energy from the Imperial Valley to other parts of California and into Arizona. IID's transmission expansion plan is designed to facilitate such exports. However, IID will be able to utilize much of the same transmission to import from the same interconnection points.

- iv. Please indicate if the upgrade reduces or may reduce the need for existing capacity at specific locations within transmission-constrained areas or affect the commitment of specific resources in these areas.

The proposed Path 42 upgrades will provide significant relief to a bottleneck between IID's system and SCE's system. In addition, IID's Midway to Devers

transmission project will alleviate congestion in this same region. Both of these upgrades will facilitate the export of renewable energy from the Imperial Valley to load centers in Southern California.

- v. Where specific project benefits are anticipated but not yet defined, describe the information and/or studies that would be required to specifically define the benefits.

Since IID's transmission system is situated in one of the key renewable resource areas of California, IID's transmission expansion plan has been primarily driven by the need to export renewable energy from the Imperial Valley to other parts of California and into Arizona. IID's transmission upgrades are an integral element to accessing Imperial Valley renewables to help the state meet its RPS goals.

- c. Descriptions of the alternatives considered in developing the upgrades, including non-wires alternatives such as generation and demand-side management.

IID's transmission expansion plan is a systematic reinforcement of IID's existing transmission system that will create a robust network to facilitate the export of renewables from the Imperial Valley to more than one load center. The IID transmission expansion plan can be implemented in a phased approach that utilizes existing facilities and rights-of-way in a cost-effective manner with minimal environmental impacts

IID has restructured its Demand Side Management programs and developed a new Energy Management and Strategic Planning (EMSP) Unit. This unit will continue to work towards the adopted energy efficiency and demand reduction targets through 2017, focusing this year on the target for 2011 of 45,067 MWh. The restructured program includes an aggressive marketing campaign for energy efficiency targeted on the District's strategic customers, increasing implementation of energy reduction measures and increasing program participation to meet adopted targets. The addition of marketing specialists will enable a continuous and sustained program outreach to strategic customers.

The EMSP Unit is proposing a pilot Ice Bear thermal storage for shifting load during peak periods with commercial customers, which will result in load shifting during critical load periods, thus reducing the cost of power to the District. In addition, the District has completed a study of renewable energy projects for its own facilities to include wind, solar, thermal storage and lighting retrofits.

4. Any maintenance or construction that could impact transfer capabilities or the ability to move power over a path between January 2011 and December 2013.

Path 42 Upgrade project will require curtailment of deliveries across Path 42 during the construction period.

5. A general description of any transmission upgrades that are expected to begin operating after December 2020.

Up to this date IID has not identified planned facilities after December 2020

Transmission Corridor Needs:

Each transmission owner shall evaluate its needs for transmission corridors on non-federal lands by addressing the following three items:

1. For those point-to-point electrical transfer needs identified in the section above entitled "Bulk Electrical System Description and Needs," please discuss potential corridor needs in relation to the following:
 - a. Opportunities to link with existing federally-designated corridors or potential federal corridors identified under Section 368 of the Energy Policy Act of 2005.

Several of IID's proposed transmission projects and upgrades within its transmission expansion plan are within designated federal corridors. These include:

PV-North Gila project
Path 42 Upgrade

- b. Opportunities to provide transmission capacity to develop the renewable generation resources needed to meet the state's Renewables Portfolio Standard (RPS) goals.

Since IID's transmission system is situated in one of the key renewable resource areas of California, IID's transmission expansion plan has been primarily driven by the need to export renewable energy from the Imperial Valley to the load centers of California. The focus of the IVSG was the export of renewables from the Imperial Valley. Portions of IID's transmission plan of service set forth in IID's transmission expansion plan was developed as a result of the IVSG with the express intent of facilitating the export of renewable from the Imperial Valley. IID's transmission expansion plan has also been evaluated as part of the CTPG transmission planning effort. The CTPG statewide conceptual transmission plan identified several IID upgrades as high or medium potential. Therefore, IID's transmission upgrades are an integral element to accessing Imperial Valley renewables to help the state meet its RPS goals.

- c. Opportunities to import additional economical electricity from out of state.

Most of the point-to-point transfer needs identified in the sections above are necessary for export of renewable energy from the Imperial Valley to other parts of California. IID's transmission expansion plan is designed to facilitate such exports. However, IID will be able to utilize much of the same transmission to import from the same interconnection points. In addition, IID's participation in the Palo Verde-

North Gila 2 project and the North Gila-Highline project are for the purposes of enhancing IID's import of energy from Arizona.

- d. Opportunities to improve the reliability or reduce the congestion of the state's electricity system.

The proposed Path 42 upgrades will provide significant relief to a bottleneck between IID's system and SCE's system. In addition, IID's Midway to Devers transmission project will alleviate congestion in this same region. Both of these upgrades will facilitate the export of renewable energy from the Imperial Valley to load centers in Southern California.

- e. Opportunities to upgrade existing transmission lines.

As described in Sections above, at the core of IID's transmission expansion plan is the upgrade of existing IID transmission lines and the utilization of existing rights-of-way for new transmission.

- f. Opportunities to meet future growth in load.

Most of the point-to-point transfer needs identified in the sections above are necessary for export of renewable energy from the Imperial Valley to other parts of California and into Arizona. IID's transmission expansion plan is designed to facilitate such exports. In addition, in order to meet its RPS goals, IID expects to rely upon renewables that are situated within its service territory. IID's transmission expansion plan is designed to facilitate the interconnection of renewable generation in Imperial Valley.

- g. The potential to impact sensitive lands that may not be appropriate locations for energy corridors – including, but not limited to, state and national parks, state and national designated wilderness and wilderness study areas, state and national wildlife refuges and areas, critical inventoried roadless areas in national forests, habitat conservation plan areas, and special habitat mitigation areas.

IID's transmission expansion plan primarily relies upon the upgrade of existing transmission lines and the utilization of existing rights-of-way for new transmission. None of IID's transmission expansion plan impacts state or federal parks or wilderness. As part of the required environmental studies for any of IID's transmission expansion plan projects, impacts to sensitive lands has been, and will be, considered.

- h. Consideration of the Garamendi Principles (See Appendix B) as identified in Senate Bill (SB) 2431 (Garamendi, Chapter 1457, Statutes of 1988) and as noted in SB 1059, Section 1 (Escutia and Morrow, Chapter 638, Statutes of 2006), in the case of existing corridors.

At the core of IID's transmission expansion plan is the upgrade of existing IID transmission lines and the utilization of existing rights-of-way for new transmission.

- i. Any work previously done with local agencies and any geographical areas of sensitivity that may have been identified.

IID, as a municipally-owned transmission provider, is the lead agency under CEQA. In developing transmission projects, IID must conduct the required environmental studies under CEQA and works with the federal government under NEPA.

- j. Any other known major issues that have the potential to impact a future corridor designation.

Future corridor designations should take into consideration the potential for stranded transmission investment of incumbent utilities. For instance, IID's renewable collector transmission system in the Salton Sea region currently has more than 1000 MW of excess capacity. A transmission corridor should not be designated that could result in the stranding of this excess capacity.

- k. Executive Order S-14-08, which established California's renewable energy goal of 33 percent from renewable resources by 2020, improved licensing processes for renewable projects, and ordered the development of the Desert Renewable Energy Conservation Plan (DRECP) for the Mojave and Colorado deserts.

Since IID's service territory is situated in one of the richest renewable energy regions of the Southwest, it has direct access to renewable energy sources. At this time, IID does not anticipate the need for designation of transmission corridors in order to meet its RPS goals.

2. If you have no plans for proposing a transmission corridor, please identify the circumstances or planning timeframes where you would opt to obtain a transmission corridor designation from the Energy Commission before applying for approval to build (or participate in) a transmission line project.

At this time, IID's transmission expansion plan does not require designation of a transmission corridor. IID's transmission expansion plan relies upon upgrades to existing transmission lines and utilization of existing rights-of-way. If in the future, IID identifies the need for a transmission line in a location where there is not existing transmission rights-of-way available or existing transmission corridors, IID would consider applying for a transmission corridor designation.

3. If you would not consider applying to the Energy Commission for a transmission corridor designation, please explain why not.

At this time, IID's transmission expansion plan does not require designation of a transmission corridor. IID's transmission expansion plan relies upon upgrades to existing transmission lines and utilization of existing rights-of-way

Approval:



David X. Kolk, Ph.D.
Assistant General Manager, Energy Department