CEC 2004 IEPR Transmission for Renewables Workshop

May 10, 2004

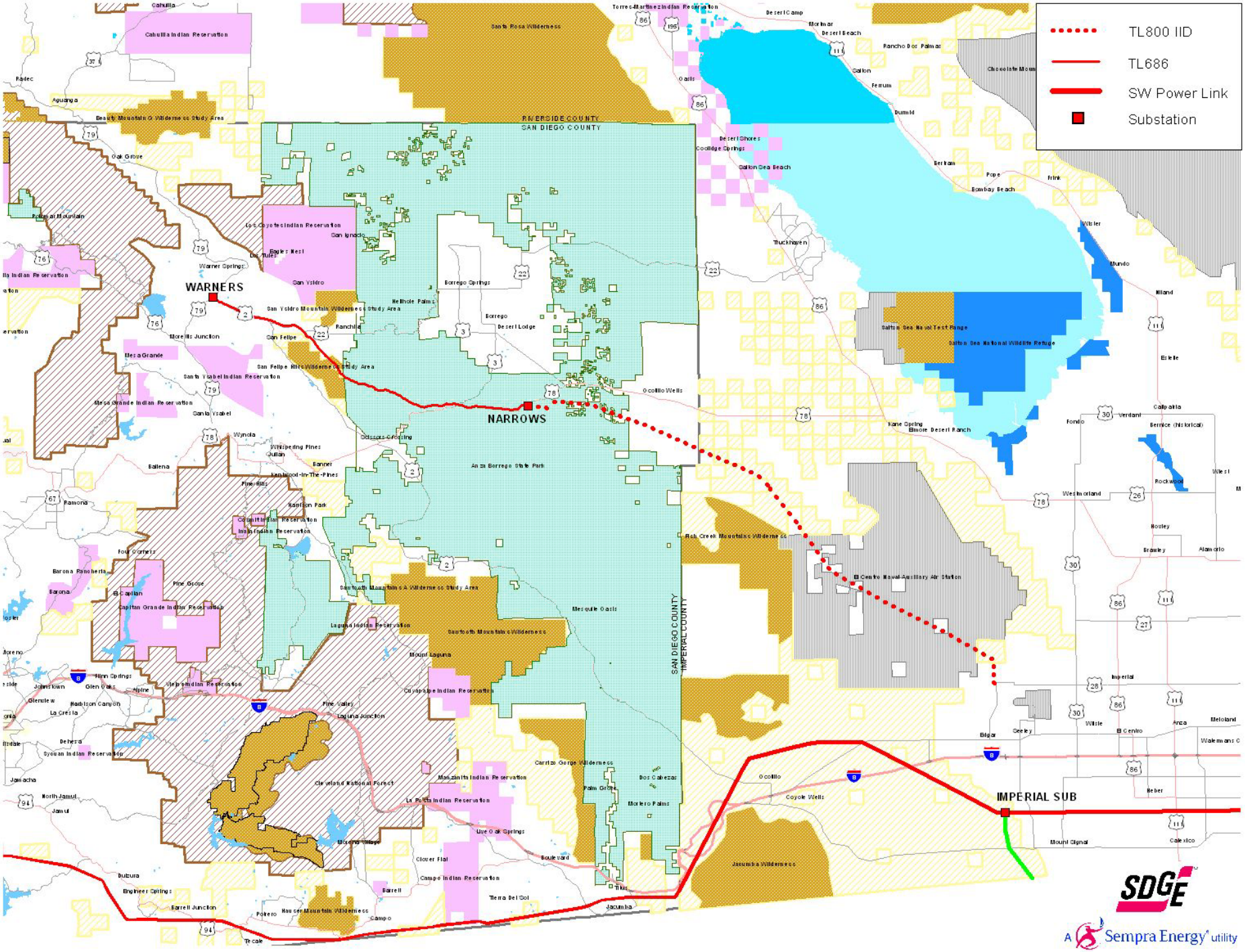
Dave Korinek, Manager
SDG&E Transmission Planning

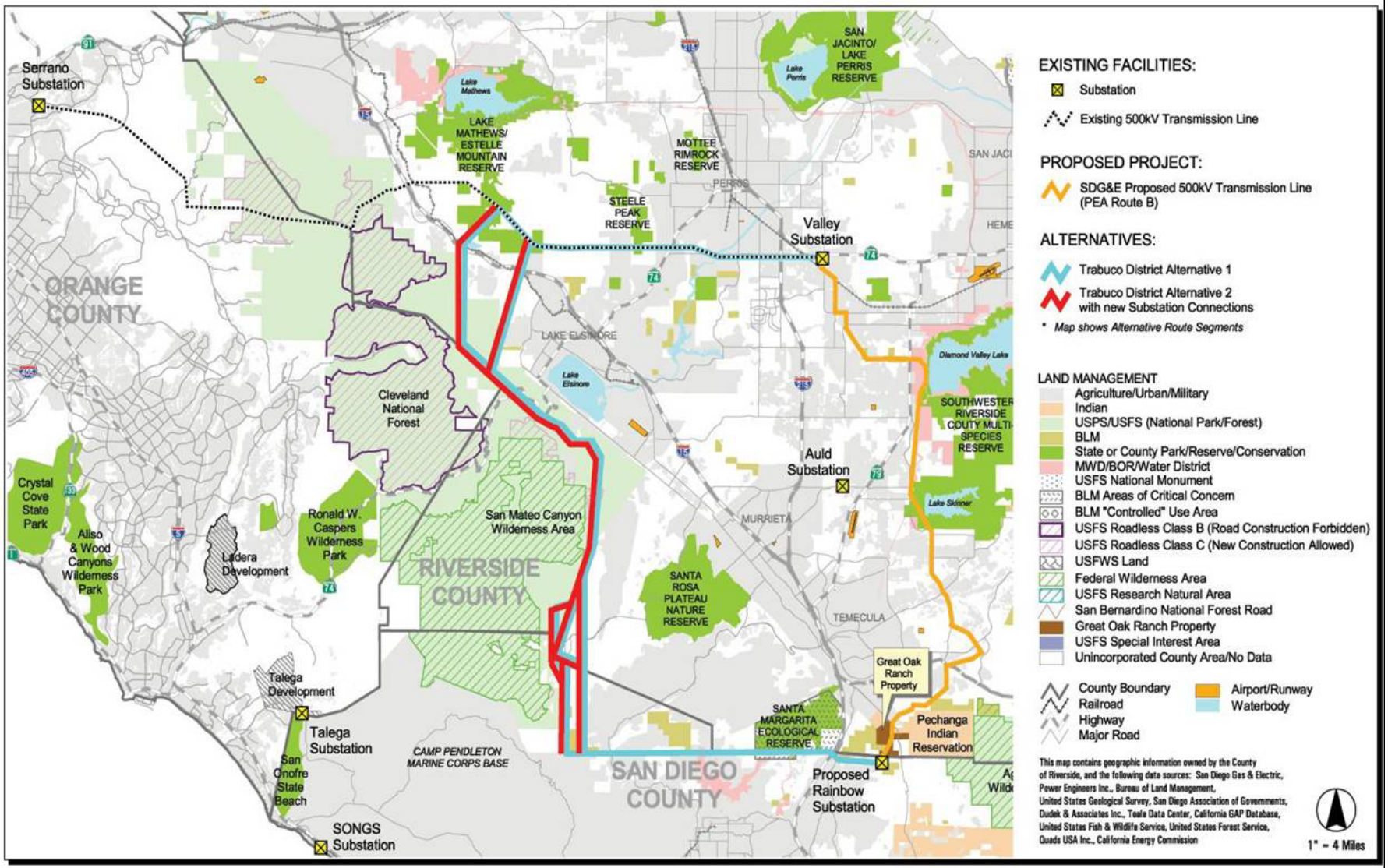
Existing & Planned SDG&E Transmission for Import of Renewables

- South of SONGS Path (2500MW) is fully subscribed for existing SONGS & CDWR shares up to 2010
- Southwest Power Link (1120MW) is fully subscribed by Arizona & Mexico resources
- Proposed Imperial Valley – San Diego 500kV Expansion Project (ISEP) could add up to 1400MW import capability
- Proposed Lake Elsinore pumped storage (LEAPS) project could add up to 1000MW import capability

External Area Renewable Interest Received in SDG&E's April 2004 Solicitation

Type	Solar	Wind	Geothermal	Total
Location	SCE Service Area	SCE Service Area	Salton Sea	
MW	200	2472	600	3272
% deliverable to SDG&E on existing Grid	0% through 2009; could replace part of CDWR starting 2010	0% through 2009; could replace part of CDWR starting 2010	0%	Max. of 2070MW on South of SONGS if no CDWR
% deliverable if build ISEP	0%	0%	100%	Maximum of 1400MW
% deliverable if build LEAPS	100%	~25-50%	0%	Maximum of 1000MW


TL800 IID
TL686
SW Power Link
Substation
WARNERS
NARROWS
IMPERIAL SUB
RIVERSIDE COUNTY
SAN DIEGO COUNTY
IMPERIAL COUNTY
Santa Rosa Wilderness
Cahuilla Indian Reservation
Beauty Mountain & Wilderness Study Area
Los Coyotes Indian Reservation
San Ysidro Mountain Wilderness Study Area
San Felipe Hills Wilderness Study Area
Santa Ysabel Indian Reservation
Mesa Grande Indian Reservation
Anza Borrego State Park
Sawtooth Mountains A Wilderness Study Area
Sawtooth Mountains Wilderness
Laguna Indian Reservation
Cuyapaipe Indian Reservation
Cleveland National Forest
Manzanita Indian Reservation
La Posta Indian Reservation
Carrizo Gorge Wilderness
Jacumba Wilderness
Fish Creek Mountains Wilderness
El Centro Naval Auxiliary Air Station
Salton Sea Naval Test Range
Salton Sea National Wildlife Refuge
Torres-Martinez Indian Reservation
Cahuilla
Radec
Aguanga
Oak Grove
Palomar Mountain
Warner Springs
Los Tules
Eagles Nest
San Ysidro
San Ignacio
Borrego Springs
Borrego
Desert Lodge
Ranchita
San Felipe
Morelis Junction
Mesa Grande
Santa Ysabel
Wynola
Whispering Pines
Julian
Banner
Kentwood-In-The-Pines
Pine Hills
Harrison Park
Cosmit Indian Reservation
Irwin Indian Reservation
Ballena
Ramona
Four Corners
Barona Rancheria
Barona
El Capitan
Pine Grove
Capitan Grande Indian Reservation
Flinn Springs
Glen Oaks
Alpine
Johnstown
Glenview
Harbison Canyon
La Cresta
Dehesa
Syouan Indian Reservation
Jamacha
North Jamul
Jamul
Dulzura
Engineer Springs
Barrell Junction
Potrero
Hauser Mountain Wilderness
Campo
Tecate
Barrell
Clover Flat
Campo Indian Reservation
Live Oak Springs
Boulevard
Tierra Del Sol
Jacumba
Tikis
Palm Grove
Dos Cabezas
Morlero Palms
Mesquite Oasis
Mount Laguna
Pine Valley
Laguna Junction
Ocotillo Wells
Kane Spring
Elmore Desert Ranch
Ocotillo
Coyote Wells
Edgar
Seeley
Wilsie
El Centro
Anza
Meloland
Imperial
Heber
Mount Signal
Calexico
Westmorland
Rockwood
Brawley
Alamorio
Hovley
Calipatria
Fondo
Verdant
Bernice (historical)
Eslelle
Niland
Mundo
Wister
Bombay Beach
Pope
Frink
Bertram
Salton Sea Beach
Desert Shores
Coolidge Springs
Oasis
Thuckhaven
Desert Camp
Mortmar
Desert Beach
Rancho Dos Palmas
Salton
Ferrum
Durmid
Chocolate Mountains
SDGE
A Sempra Energy utility



Source: LEAPS Presentation to CPUC in March 2004

Transmission Action Plan for External SDG&E Renewables

- Secure 500kV corridor through Anza Borrego Desert State Park for ISEP to access Salton Sea geothermal
- Support LEAPS corridor across US Forest Service land for access to SCE area wind & solar
- Long-term plan: identify preferred corridor to connect ISEP to LEAPS forming 500kV loop from Imperial Valley through SDG&E to SCE