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Jana Brandt
Regulatory Affairs and Contracts Department
Salt River Project
PO Box 52025, MS PAB221
Phoenix, Arizona 85072-2025
Phone: (602) 236-5028
Fax: (602) 220-1171

2008 MAY 30 A 9: 45

AZ CORP COMMISSION
DOCKET CONTROL

Arizona Corporation Commission
DOCKETED

MAY 30 2008

DOCKETED BY

May 30, 2008

Docket Control
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

RE: 2008 Biennial Electric Transmission Assessment for 2008-2017 – Salt River Project Presentations
Docket No. E-00000D-07-0376

Dear Sir/Madam:

At the initial ACC workshop of the fifth Biennial Transmission Assessment held on May 22 and 23, 2008, all workshop presenters were asked to provide copies of their presentations to Docket Control. The Salt River Project (SRP) hereby provides copies of the presentations of its four presenters as noted below:

- SRP 10 Year Transmission Plan (Agenda Item 2a.) – Chuck Russell
- CATS-EHV Ten Year Snapshot and N-1-1 Studies (Agenda Item 3b.) – Jose Silva
- NERC Mandatory Reliability Standards (Agenda Item 4a.) – Steven Cobb
- SWAT Subregional Planning Group Update (Agenda Item 4c.) – Robert Kondziolka

If you have any questions pertaining to these presentations, please contact me at 602-236-5028.

Sincerely,

Jana Brandt

Jana Brandt

Enclosures (4)

cc: Prem Bahl
Laurie Woodall – K.R. Saline & Associates

Original and 13 copies of the foregoing filed with Docket Control

Arizona Corporation Commission Workshop

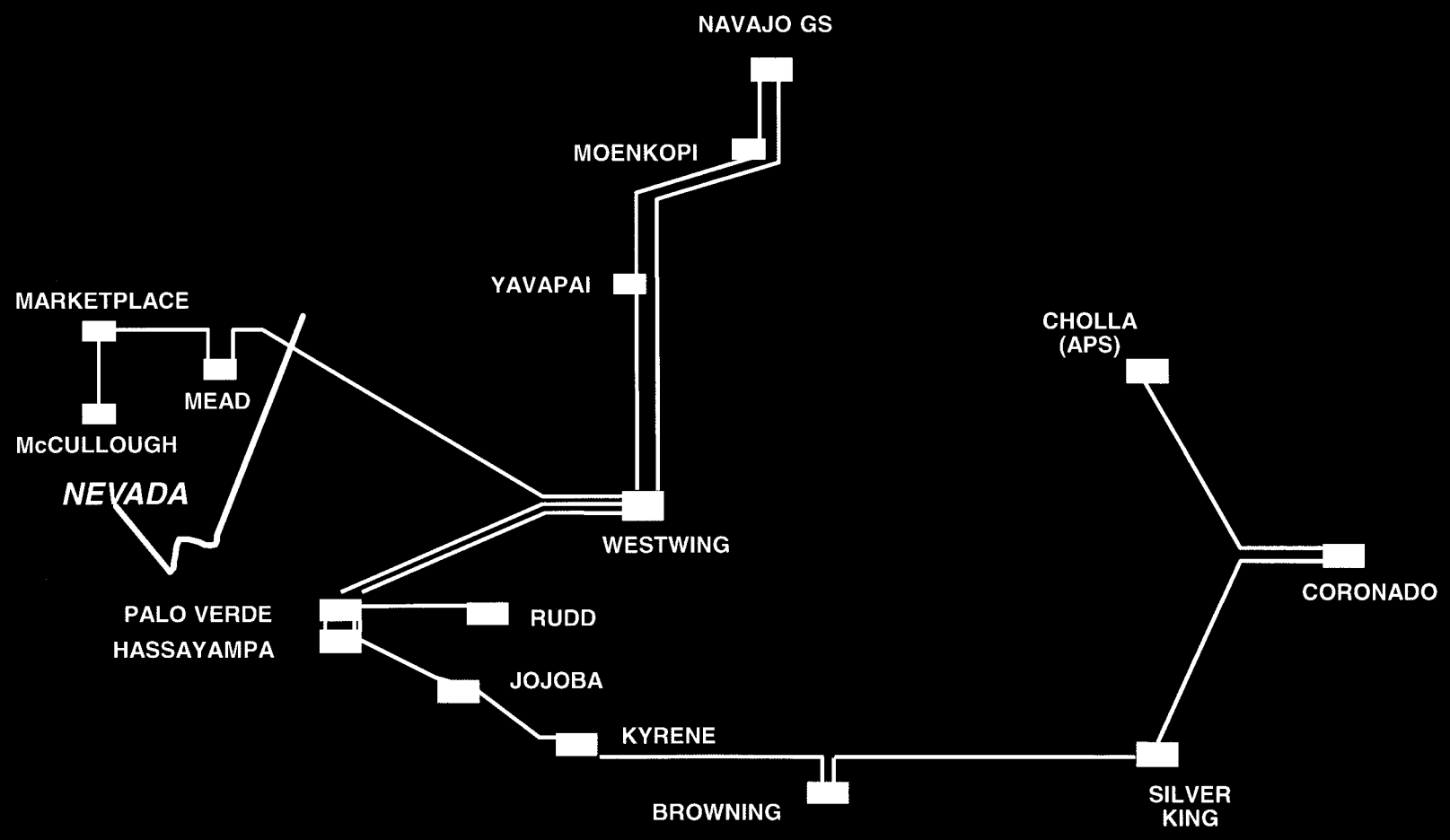
Fifth Biennial Transmission Assessment

SRP Ten Year Transmission Plan 2008-2017

Chuck Russell, SRP Transmission Planning

Arizona Industrial Commission Auditorium
May 22 & 23, 2008

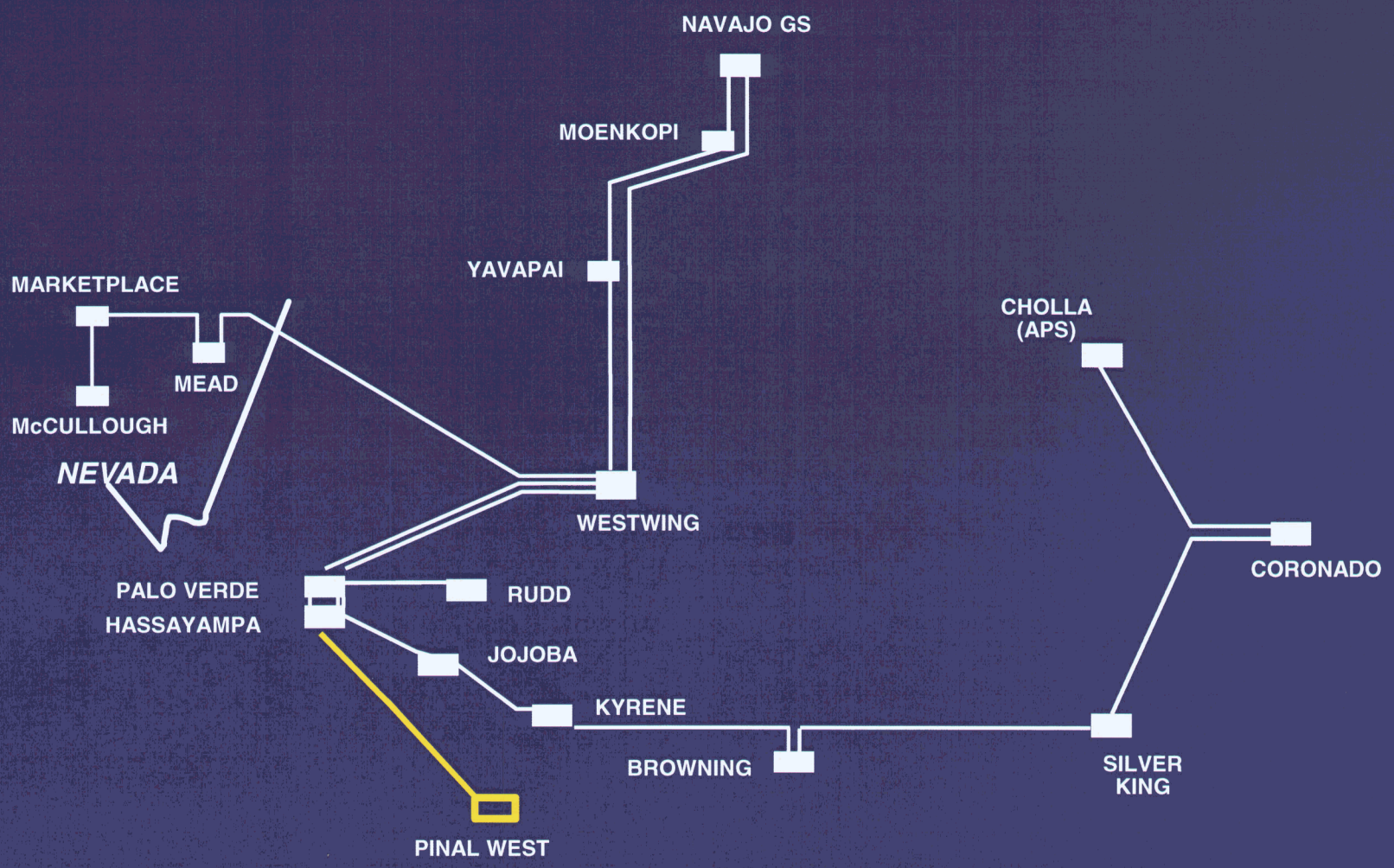
Delivering More Than Power.®



TODAY

SALT RIVER PROJECT
500kV SYSTEM

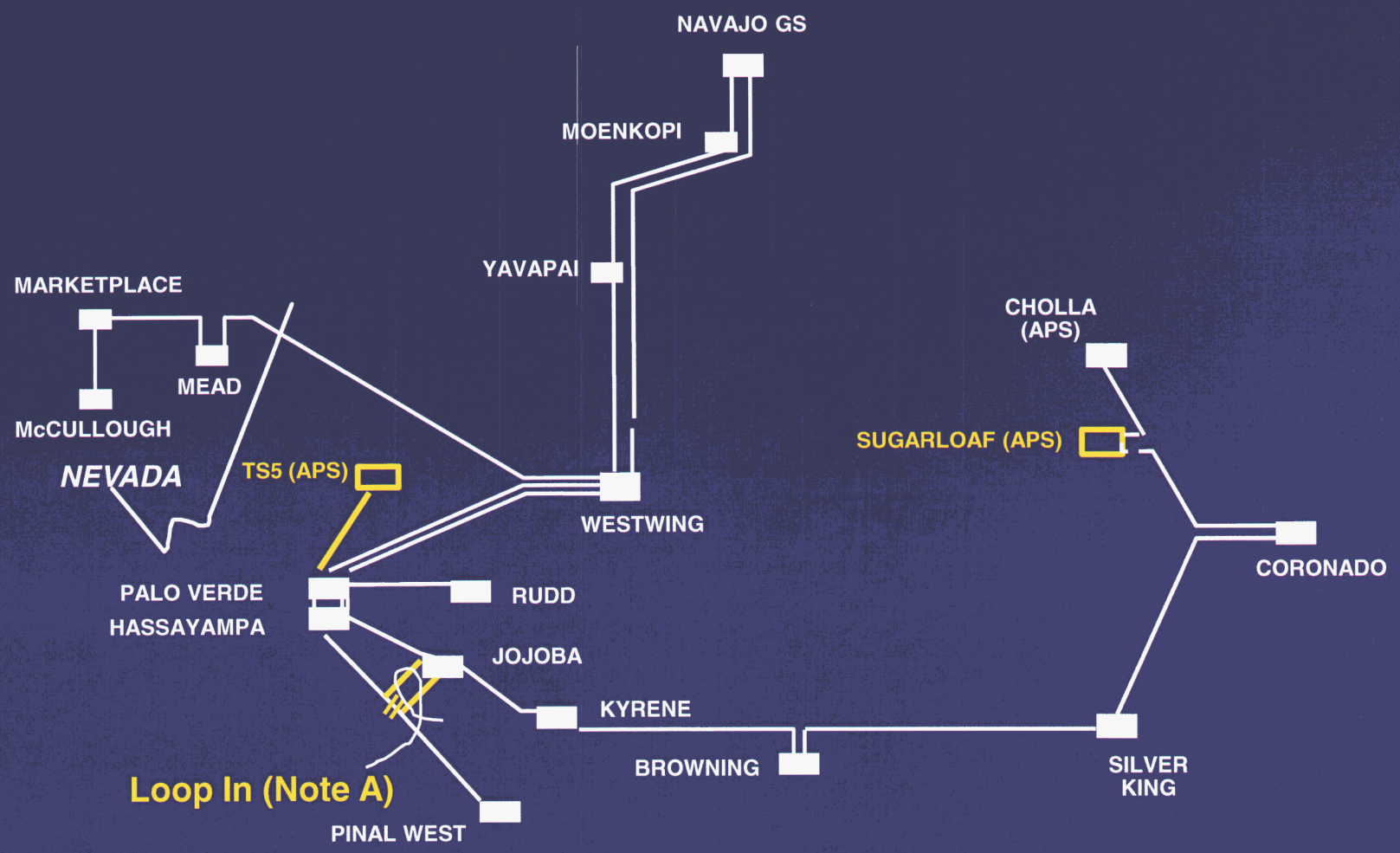
5/29/2008 090111SS-2



2008

SALT RIVER PROJECT
500kV SYSTEM

5/29/2008 090111SS-3

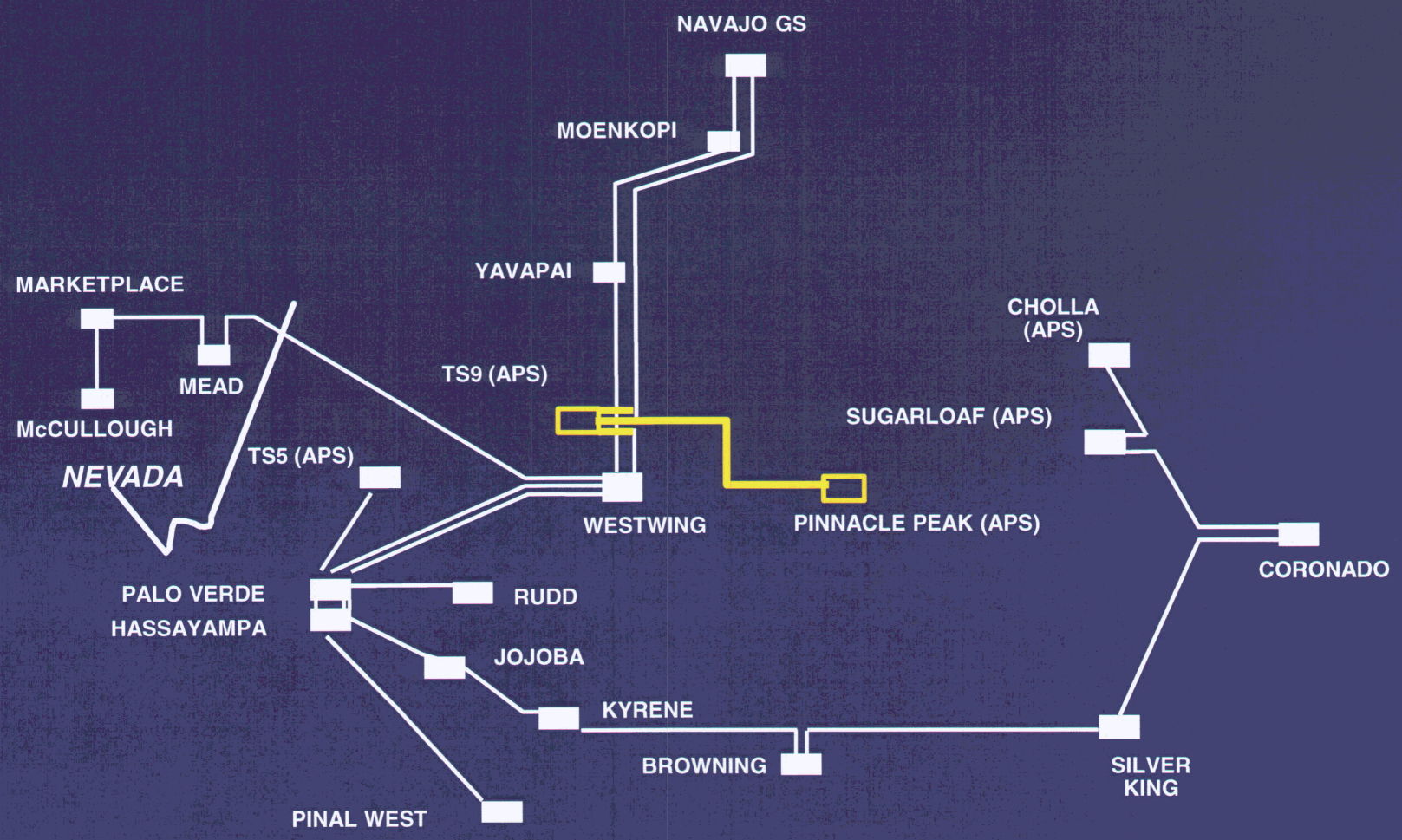


Note A: This loop in is being studied through an interconnection request

2009

SALT RIVER PROJECT
500kV SYSTEM

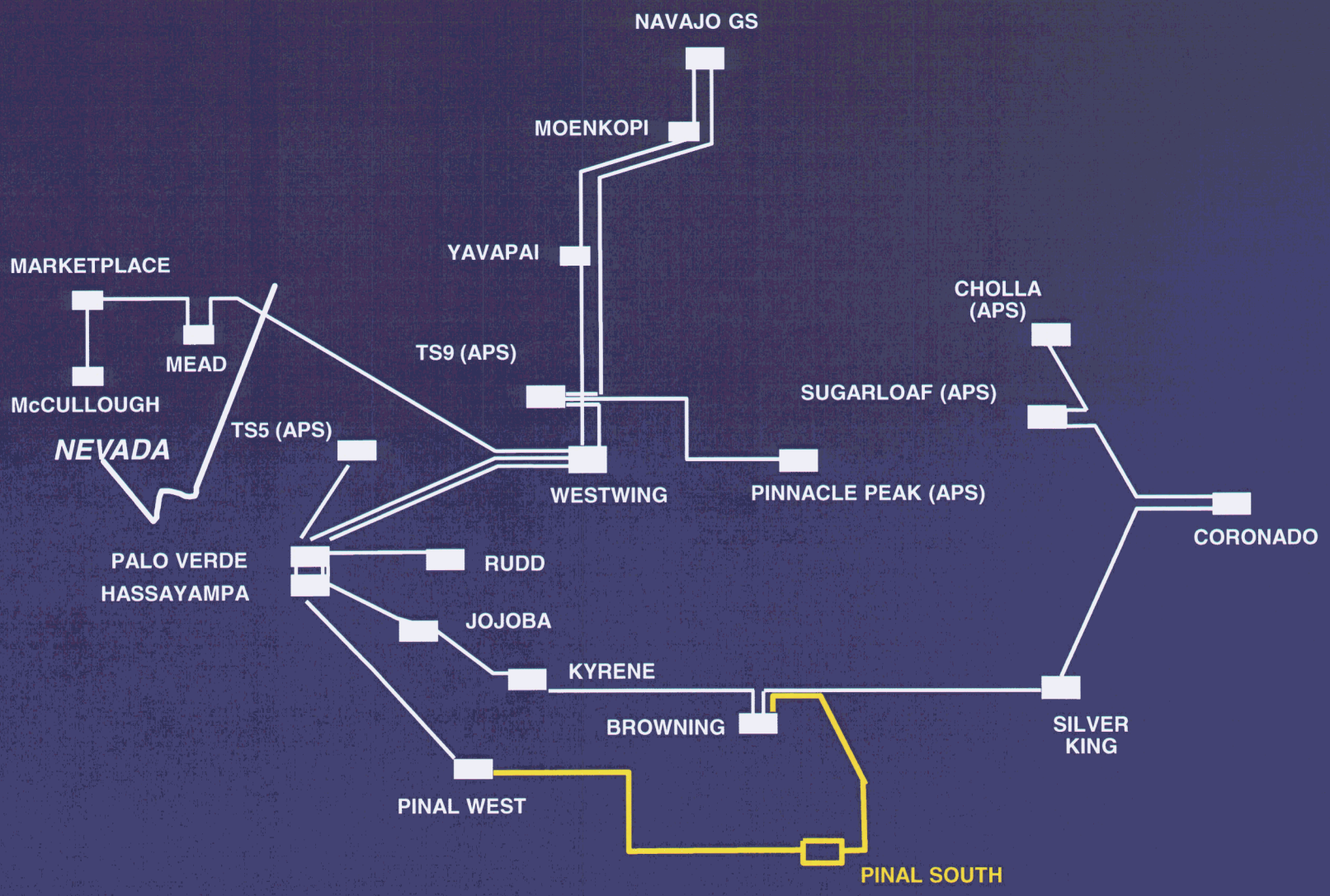
5/29/2008 090111SS-4



2010

SALT RIVER PROJECT
500kV SYSTEM

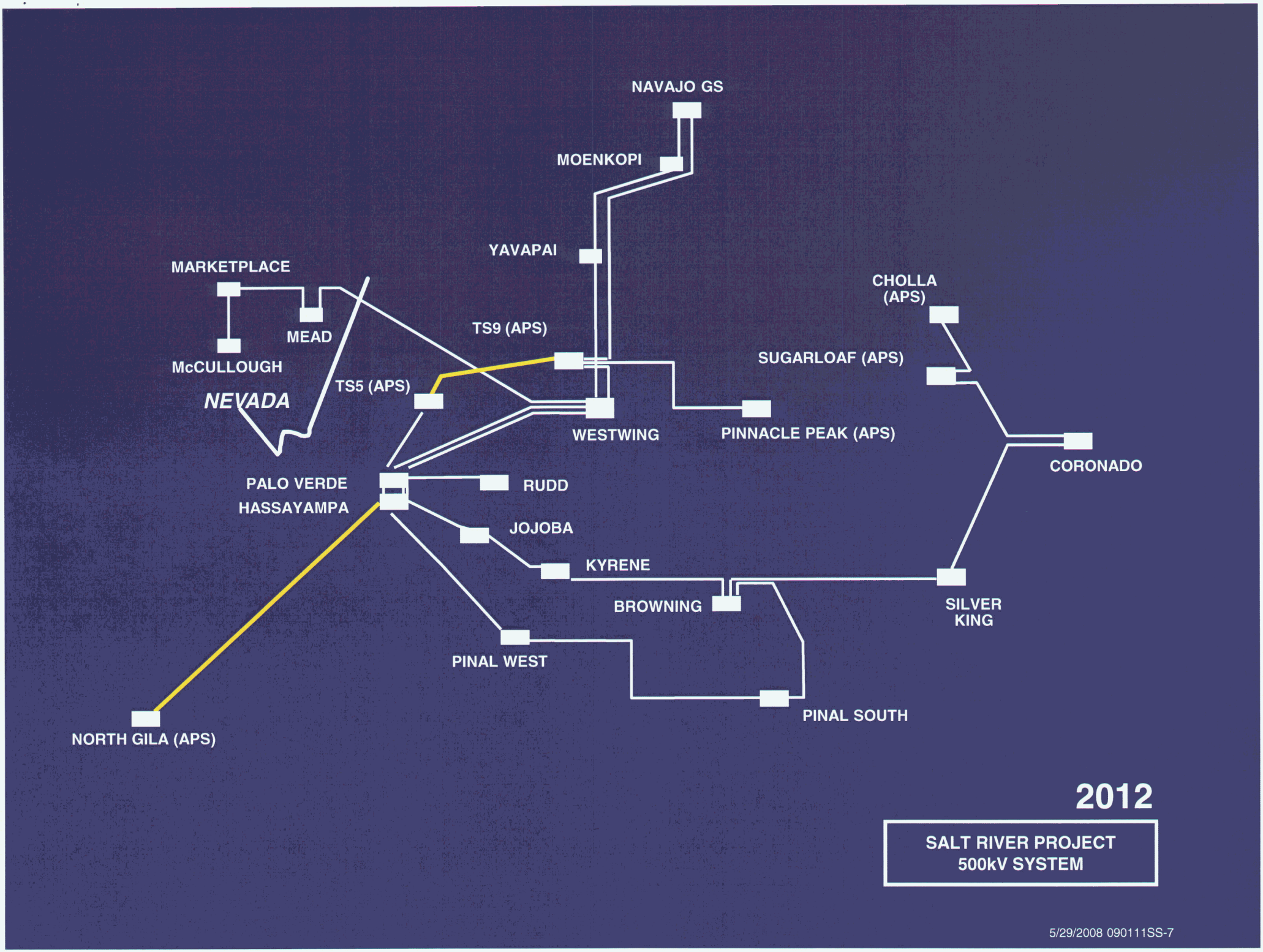
5/29/2008 090111SS-5

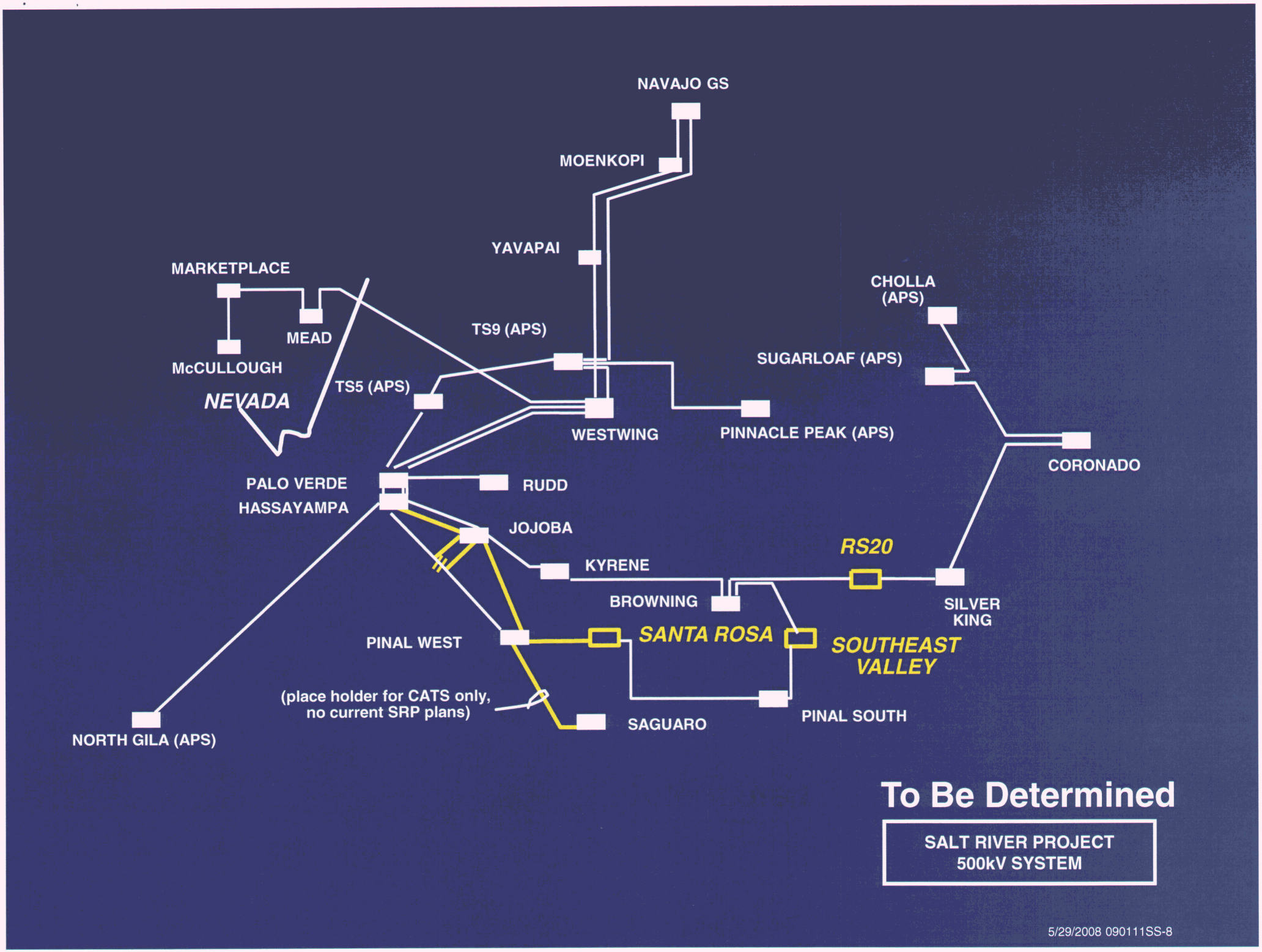


2011

SALT RIVER PROJECT
500kV SYSTEM

5/29/2008 090111SS-6


NAVAJO GS
MOENKOPI
YAVAPAI
MARKETPLACE
MEAD
McCULLOUGH
NEVADA
TS9 (APS)
TS5 (APS)
WESTWING
SUGARLOAF (APS)
PINNACLE PEAK (APS)
CHOLLA
(APS)
CORONADO
PALO VERDE
HASSAYAMPA
RUDD
JOJOBA
KYRENE
BROWNING
SILVER
KING
PINAL WEST
PINAL SOUTH
NORTH GILA (APS)
2012
SALT RIVER PROJECT
500kV SYSTEM
5/29/2008 090111SS-7


NAVAJO GS
MOENKOPI
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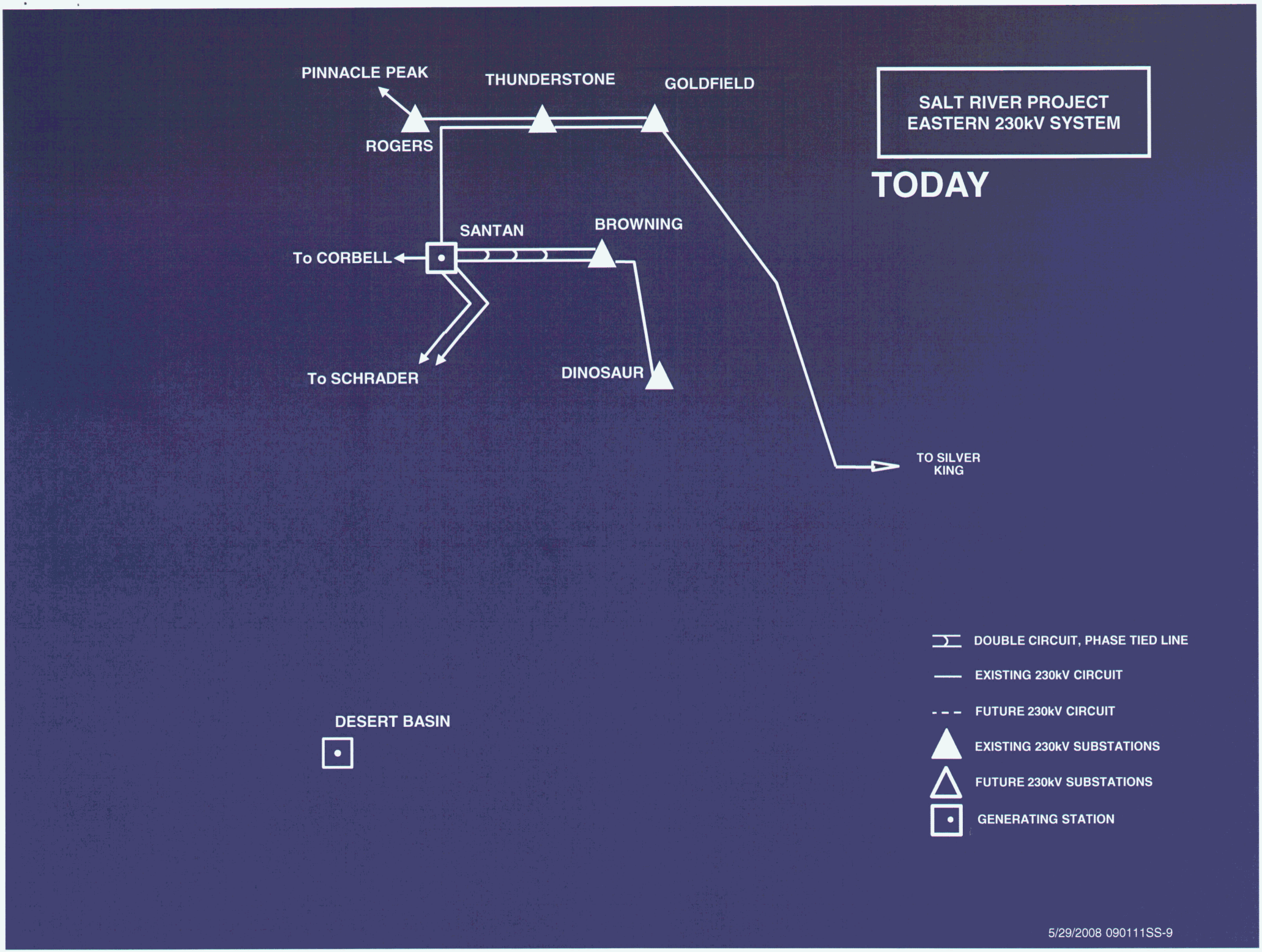
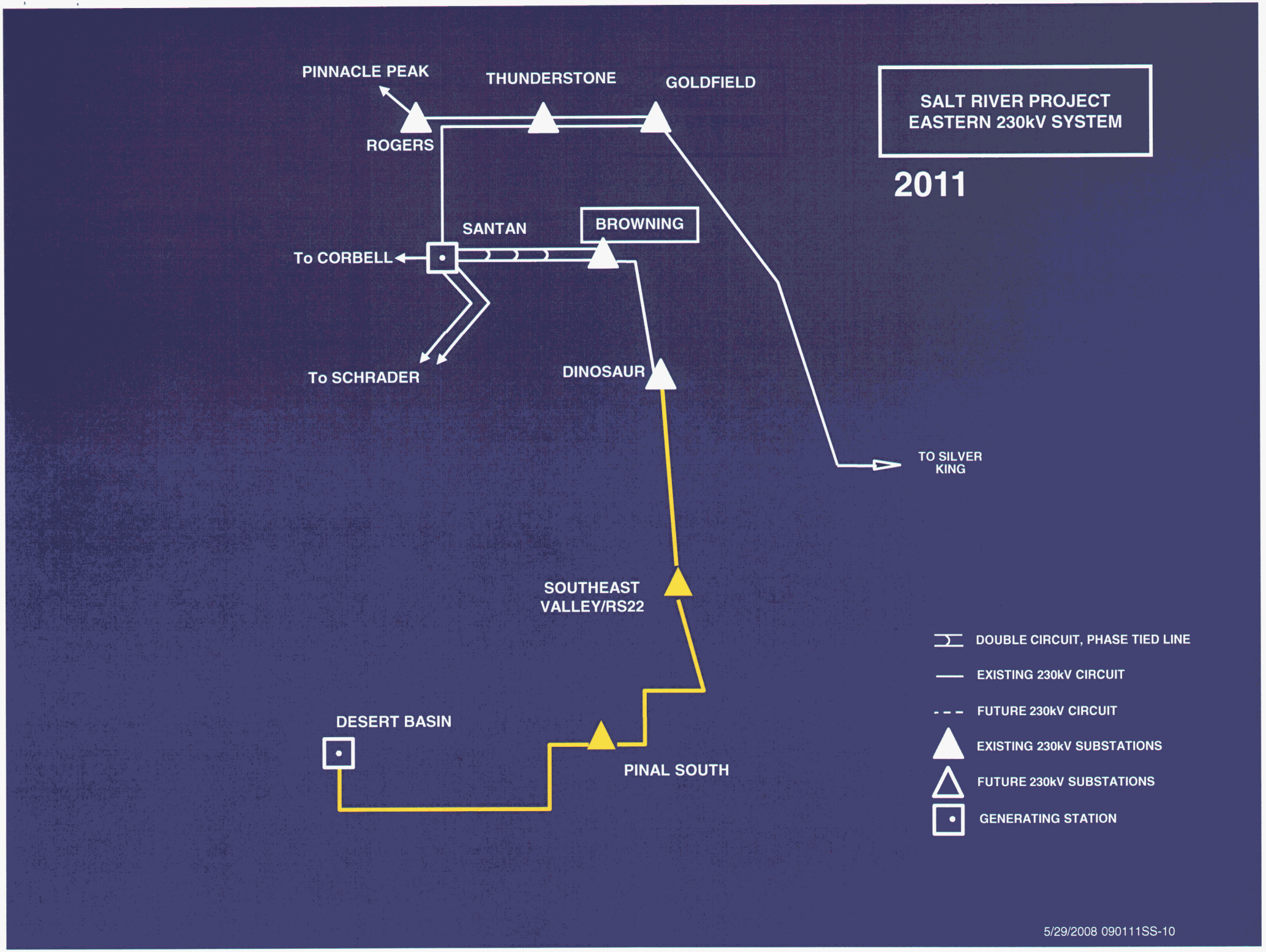
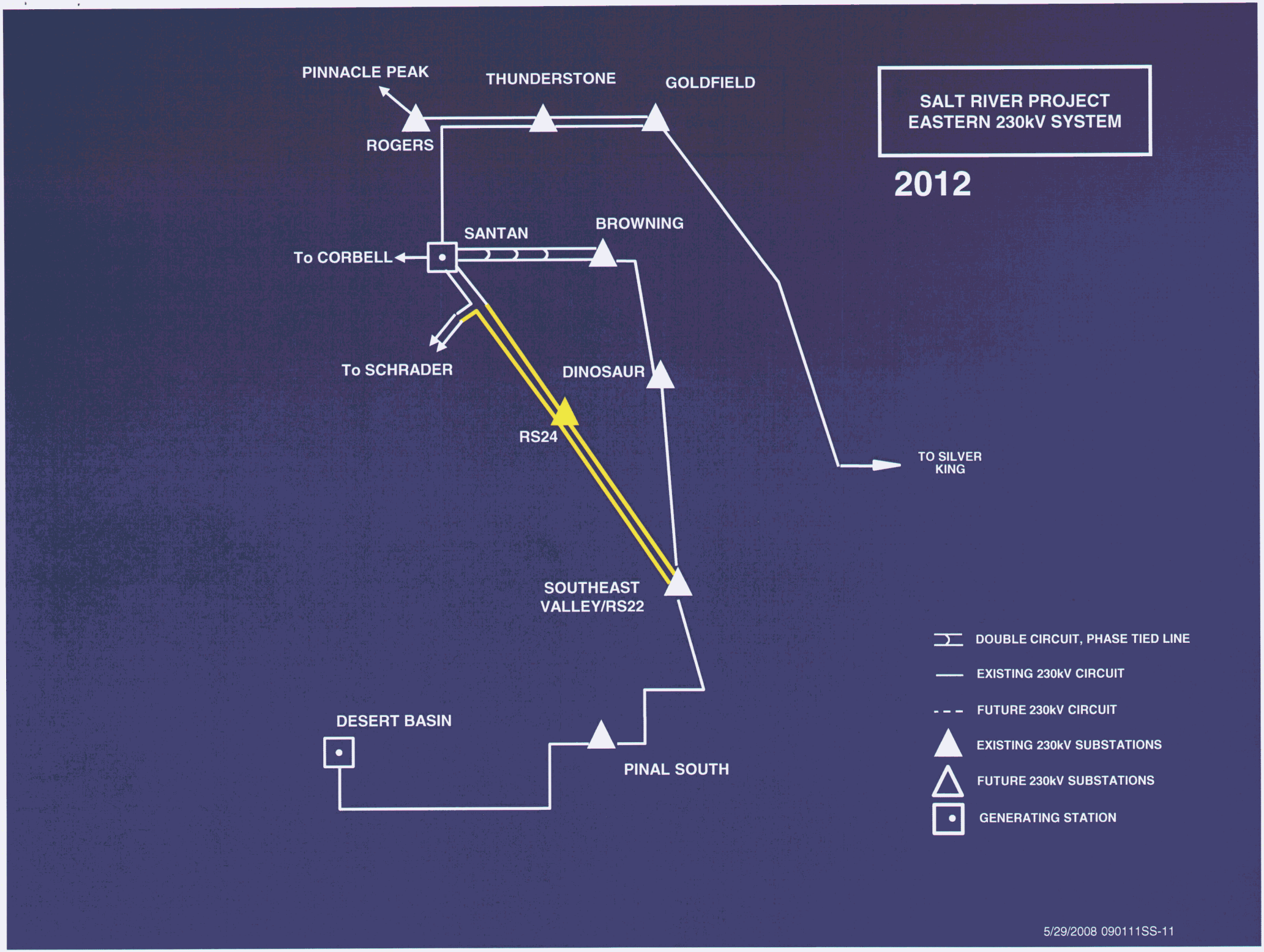
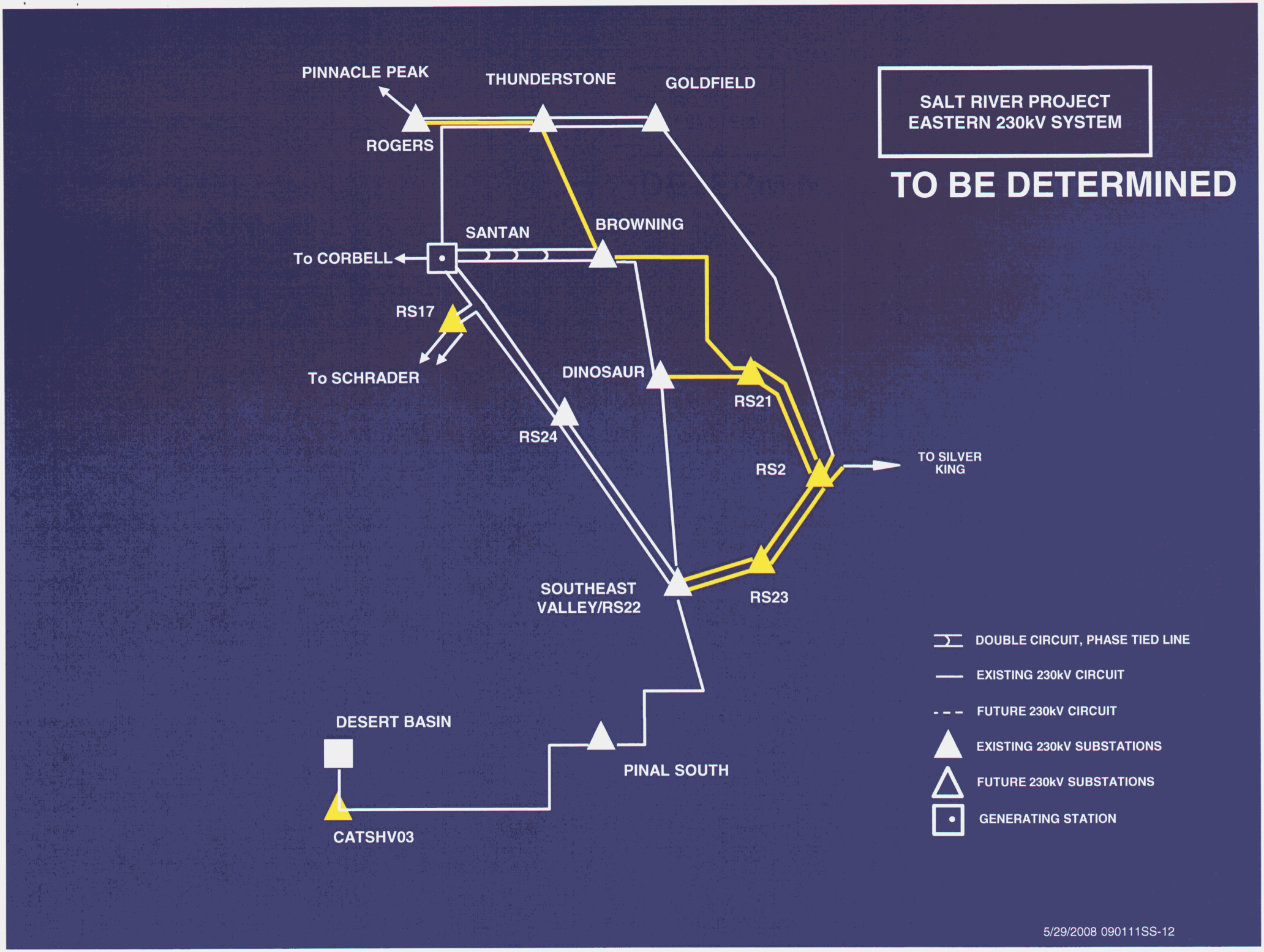
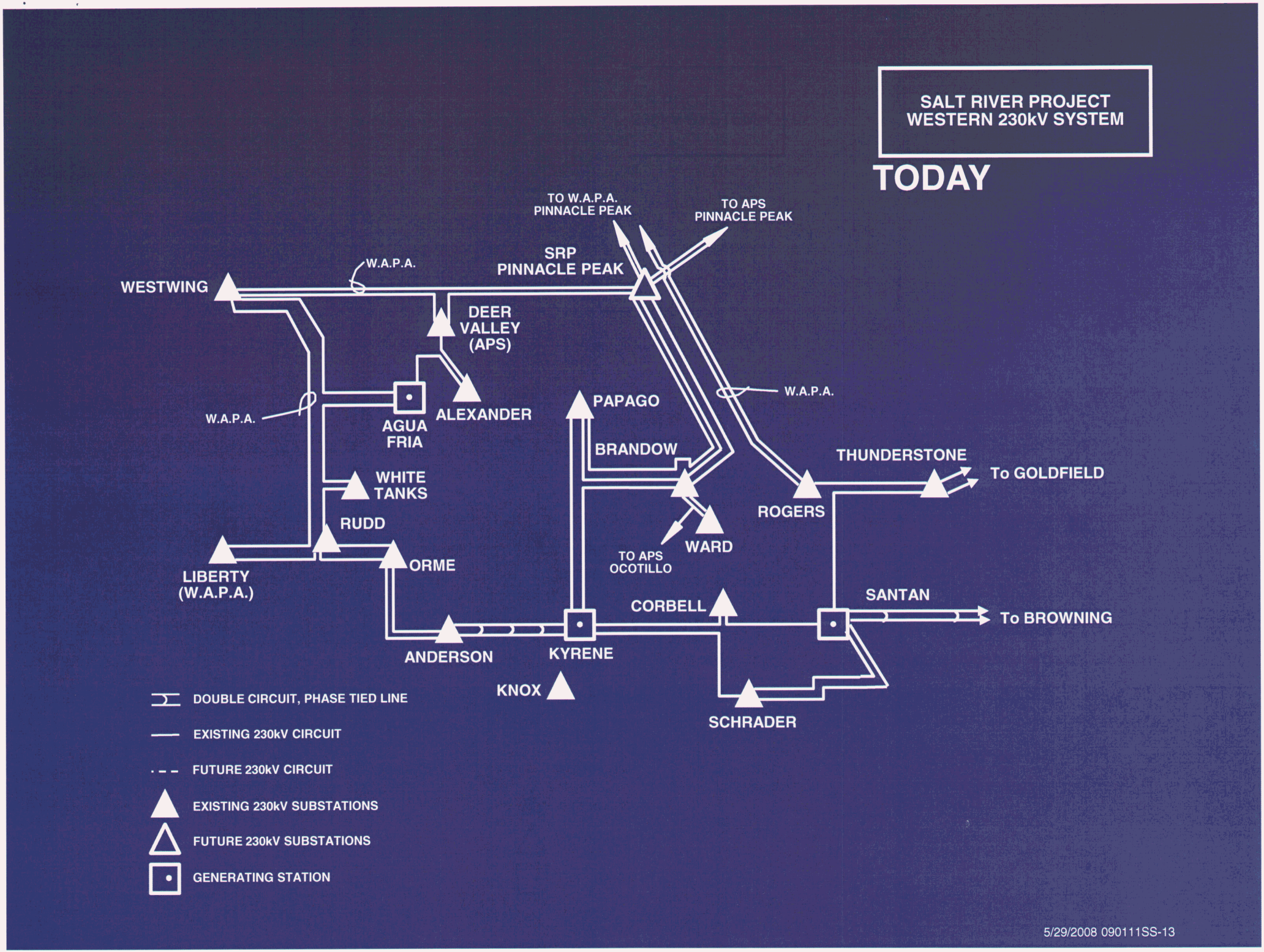
MARKETPLACE
MEAD
McCULLOUGH
NEVADA
TS9 (APS)
TS5 (APS)
WESTWING
SUGARLOAF (APS)
PINNACLE PEAK (APS)
CHOLLA (APS)
CORONADO
PALO VERDE
HASSAYAMPA
RUDD
JOJOBA
KYRENE
RS20
BROWNING
SILVER KING
PINAL WEST
SANTA ROSA
SOUTHEAST VALLEY
(place holder for CATS only, no current SRP plans)
SAGUARO
PINAL SOUTH
NORTH GILA (APS)
To Be Determined
SALT RIVER PROJECT
500kV SYSTEM
5/29/2008 090111SS-8

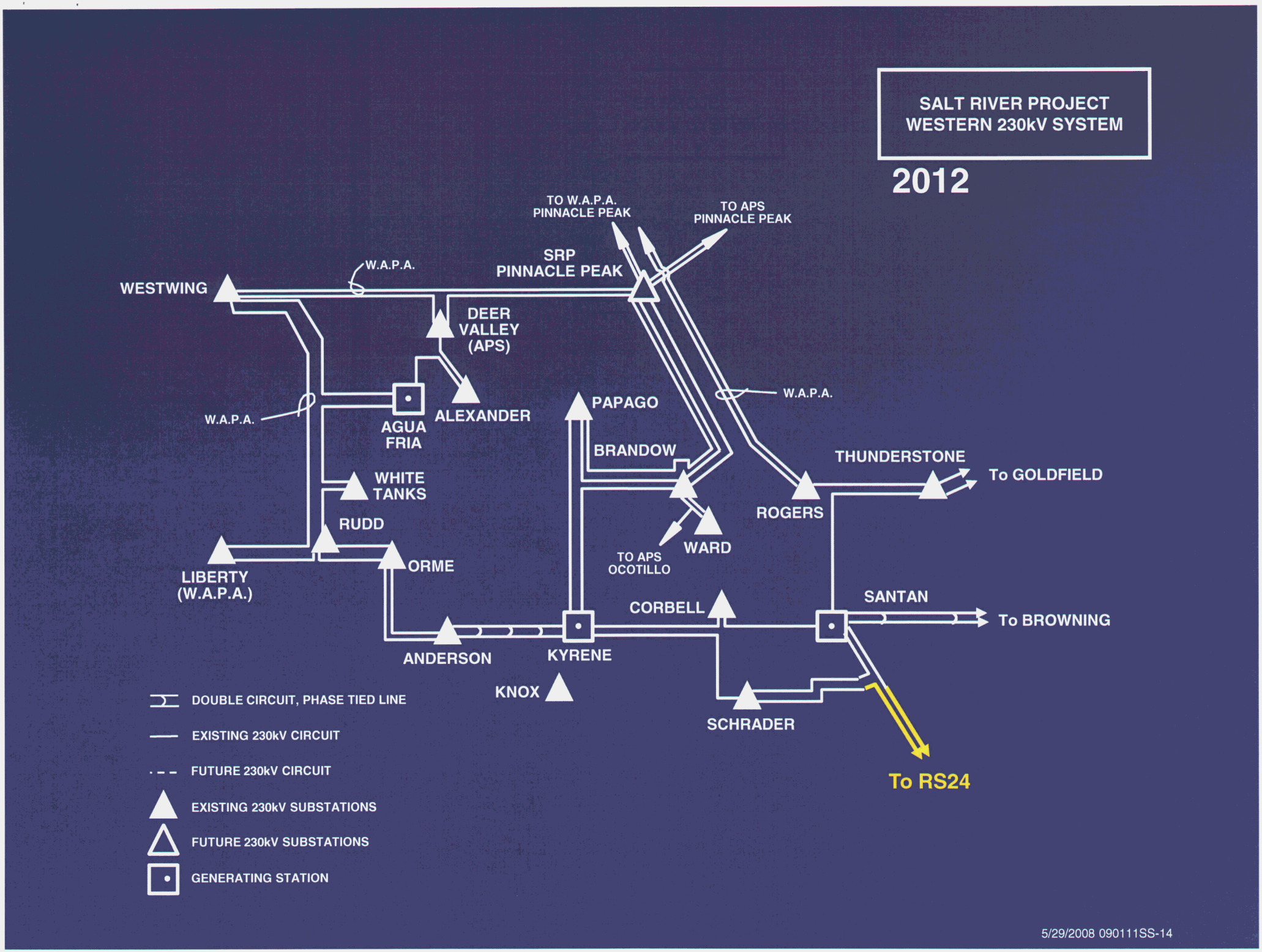

SALT RIVER PROJECT
EASTERN 230kV SYSTEM
TODAY
PINNACLE PEAK
THUNDERSTONE
GOLDFIELD
ROGERS
SANTAN
BROWNING
To CORBELL
To SCHRADER
DINOSAUR
TO SILVER KING
DESERT BASIN
DOUBLE CIRCUIT, PHASE TIED LINE
EXISTING 230kV CIRCUIT
FUTURE 230kV CIRCUIT
EXISTING 230kV SUBSTATIONS
FUTURE 230kV SUBSTATIONS
GENERATING STATION
5/29/2008 090111SS-9

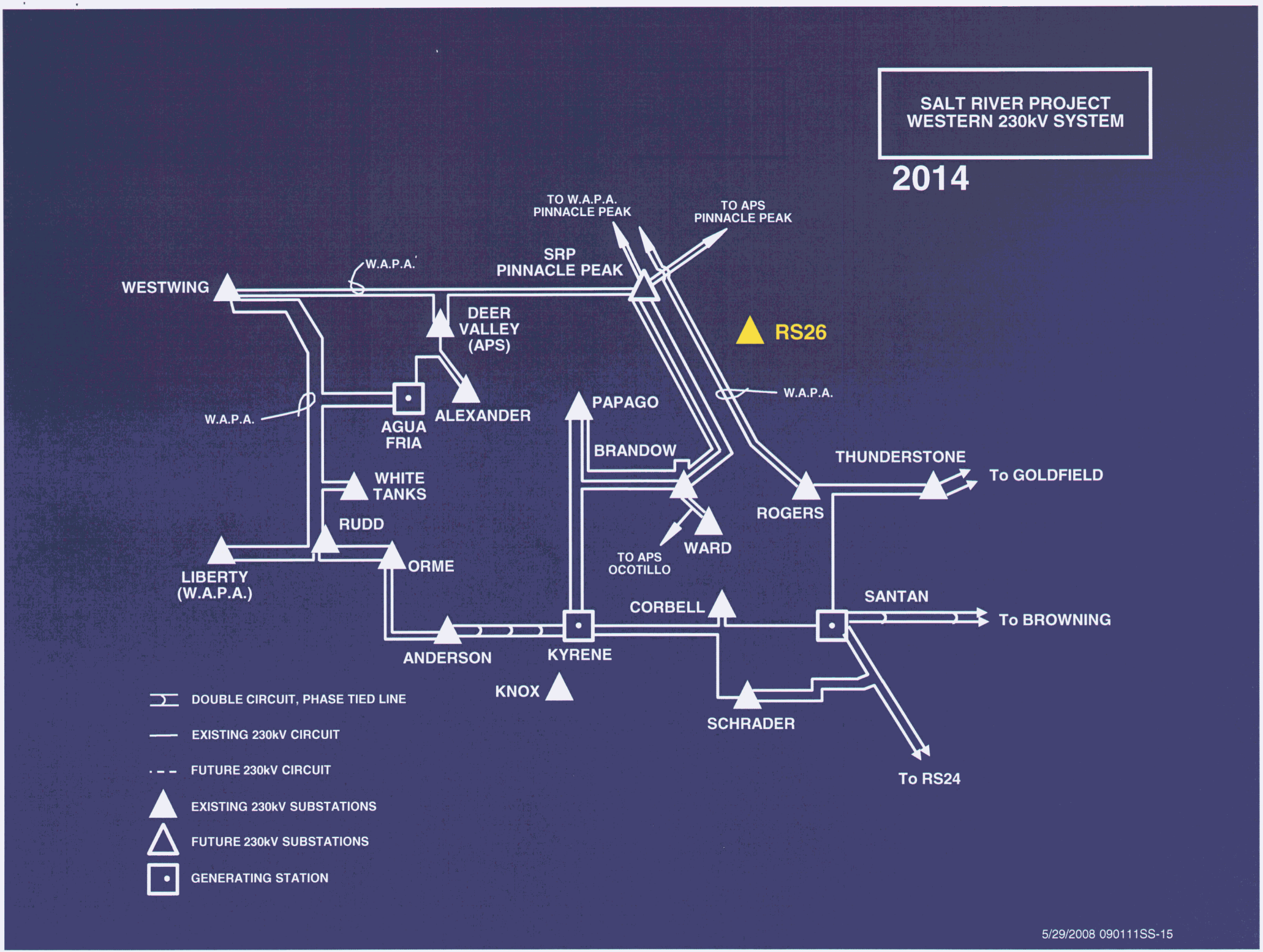

SALT RIVER PROJECT
EASTERN 230kV SYSTEM
2011
PINNACLE PEAK
THUNDERSTONE
GOLDFIELD
ROGERS
SANTAN
BROWNING
To CORBELL
To SCHRADER
DINOSAUR
TO SILVER KING
SOUTHEAST VALLEY/RS22
DESERT BASIN
PINAL SOUTH
DOUBLE CIRCUIT, PHASE TIED LINE
EXISTING 230kV CIRCUIT
FUTURE 230kV CIRCUIT
EXISTING 230kV SUBSTATIONS
FUTURE 230kV SUBSTATIONS
GENERATING STATION
5/29/2008 090111SS-10


SALT RIVER PROJECT
EASTERN 230kV SYSTEM
2012
PINNACLE PEAK
THUNDERSTONE
GOLDFIELD
ROGERS
SANTAN
BROWNING
To CORBELL
To SCHRADER
DINOSAUR
RS24
TO SILVER KING
SOUTHEAST VALLEY/RS22
DESERT BASIN
PINAL SOUTH
DOUBLE CIRCUIT, PHASE TIED LINE
EXISTING 230kV CIRCUIT
FUTURE 230kV CIRCUIT
EXISTING 230kV SUBSTATIONS
FUTURE 230kV SUBSTATIONS
GENERATING STATION
5/29/2008 090111SS-11


SALT RIVER PROJECT
EASTERN 230kV SYSTEM
TO BE DETERMINED
PINNACLE PEAK
THUNDERSTONE
GOLDFIELD
ROGERS
SANTAN
BROWNING
To CORBELL
RS17
To SCHRADER
DINOSAUR
RS21
RS24
RS2
TO SILVER KING
SOUTHEAST VALLEY/RS22
RS23
DESERT BASIN
PINAL SOUTH
CATSHV03
DOUBLE CIRCUIT, PHASE TIED LINE
EXISTING 230kV CIRCUIT
FUTURE 230kV CIRCUIT
EXISTING 230kV SUBSTATIONS
FUTURE 230kV SUBSTATIONS
GENERATING STATION
5/29/2008 090111SS-12


SALT RIVER PROJECT
WESTERN 230kV SYSTEM
TODAY
TO W.A.P.A.
PINNACLE PEAK
TO APS
PINNACLE PEAK
SRP
PINNACLE PEAK
W.A.P.A.
WESTWING
DEER
VALLEY
(APS)
W.A.P.A.
AGUA
FRIA
ALEXANDER
PAPAGO
W.A.P.A.
BRANDOW
THUNDERSTONE
To GOLDFIELD
WHITE
TANKS
ROGERS
RUDD
WARD
TO APS
OCOTILLO
ORME
LIBERTY
(W.A.P.A.)
CORBELL
SANTAN
To BROWNING
ANDERSON
KYRENE
KNOX
SCHRADER
DOUBLE CIRCUIT, PHASE TIED LINE
EXISTING 230kV CIRCUIT
FUTURE 230kV CIRCUIT
EXISTING 230kV SUBSTATIONS
FUTURE 230kV SUBSTATIONS
GENERATING STATION
5/29/2008 090111SS-13


SALT RIVER PROJECT
WESTERN 230kV SYSTEM
2012
TO W.A.P.A.
PINNACLE PEAK
TO APS
PINNACLE PEAK
SRP
PINNACLE PEAK
W.A.P.A.
WESTWING
DEER
VALLEY
(APS)
W.A.P.A.
AGUA
FRIA
ALEXANDER
PAPAGO
W.A.P.A.
BRANDOW
THUNDERSTONE
To GOLDFIELD
WHITE
TANKS
ROGERS
RUDD
WARD
TO APS
OCOTILLO
ORME
LIBERTY
(W.A.P.A.)
CORBELL
SANTAN
To BROWNING
ANDERSON
KYRENE
KNOX
SCHRADER
To RS24
DOUBLE CIRCUIT, PHASE TIED LINE
EXISTING 230kV CIRCUIT
FUTURE 230kV CIRCUIT
EXISTING 230kV SUBSTATIONS
FUTURE 230kV SUBSTATIONS
GENERATING STATION
5/29/2008 090111SS-14


SALT RIVER PROJECT
WESTERN 230kV SYSTEM
2014
TO W.A.P.A.
PINNACLE PEAK
TO APS
PINNACLE PEAK
SRP
PINNACLE PEAK
W.A.P.A.
WESTWING
DEER
VALLEY
(APS)
RS26
W.A.P.A.
W.A.P.A.
AGUA
FRIA
ALEXANDER
PAPAGO
BRANDOW
THUNDERSTONE
To GOLDFIELD
WHITE
TANKS
ROGERS
RUDD
WARD
TO APS
OCOTILLO
ORME
LIBERTY
(W.A.P.A.)
SANTAN
CORBELL
To BROWNING
ANDERSON
KYRENE
KNOX
SCHRADER
To RS24
DOUBLE CIRCUIT, PHASE TIED LINE
EXISTING 230kV CIRCUIT
FUTURE 230kV CIRCUIT
EXISTING 230kV SUBSTATIONS
FUTURE 230kV SUBSTATIONS
GENERATING STATION
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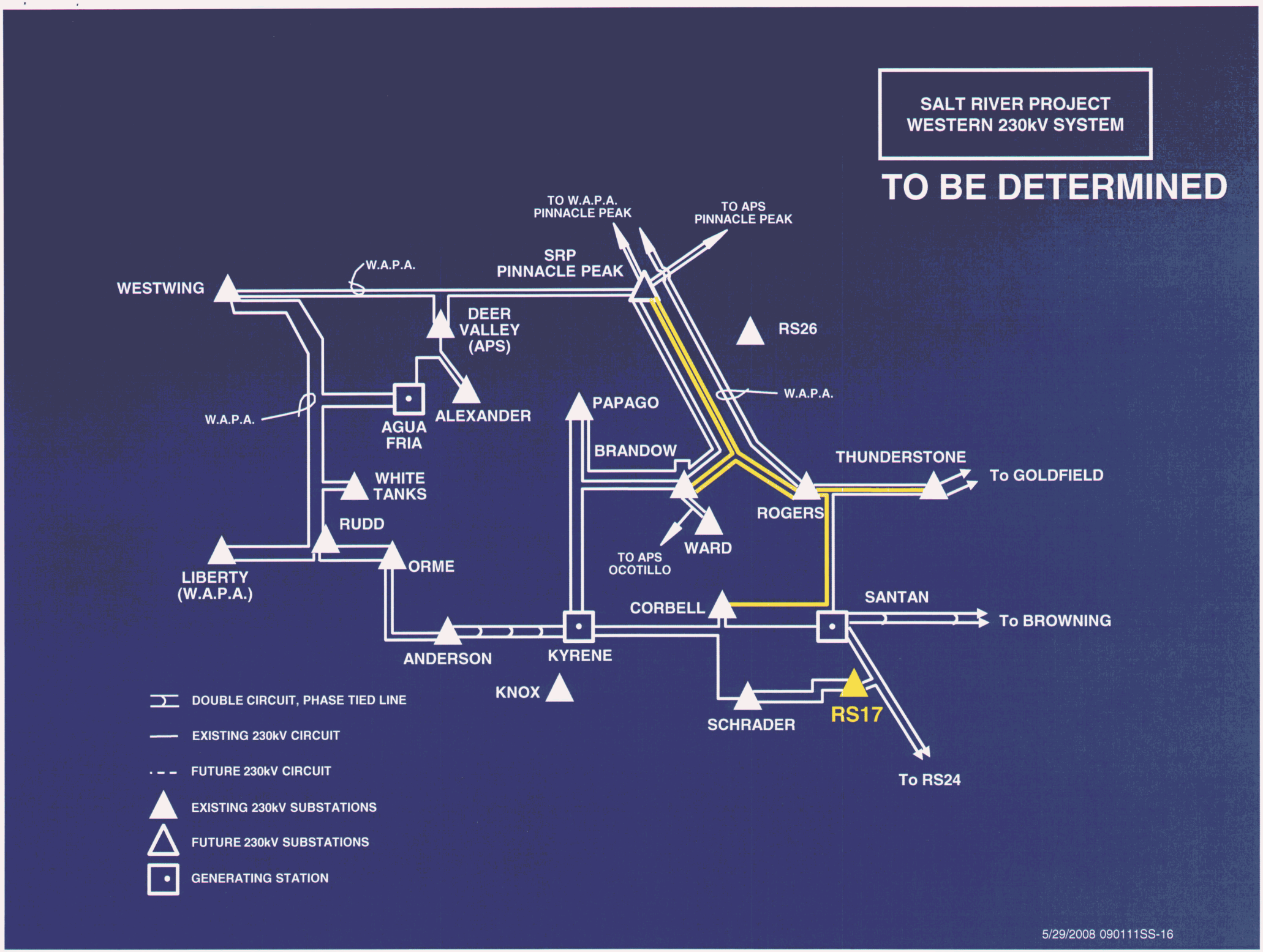
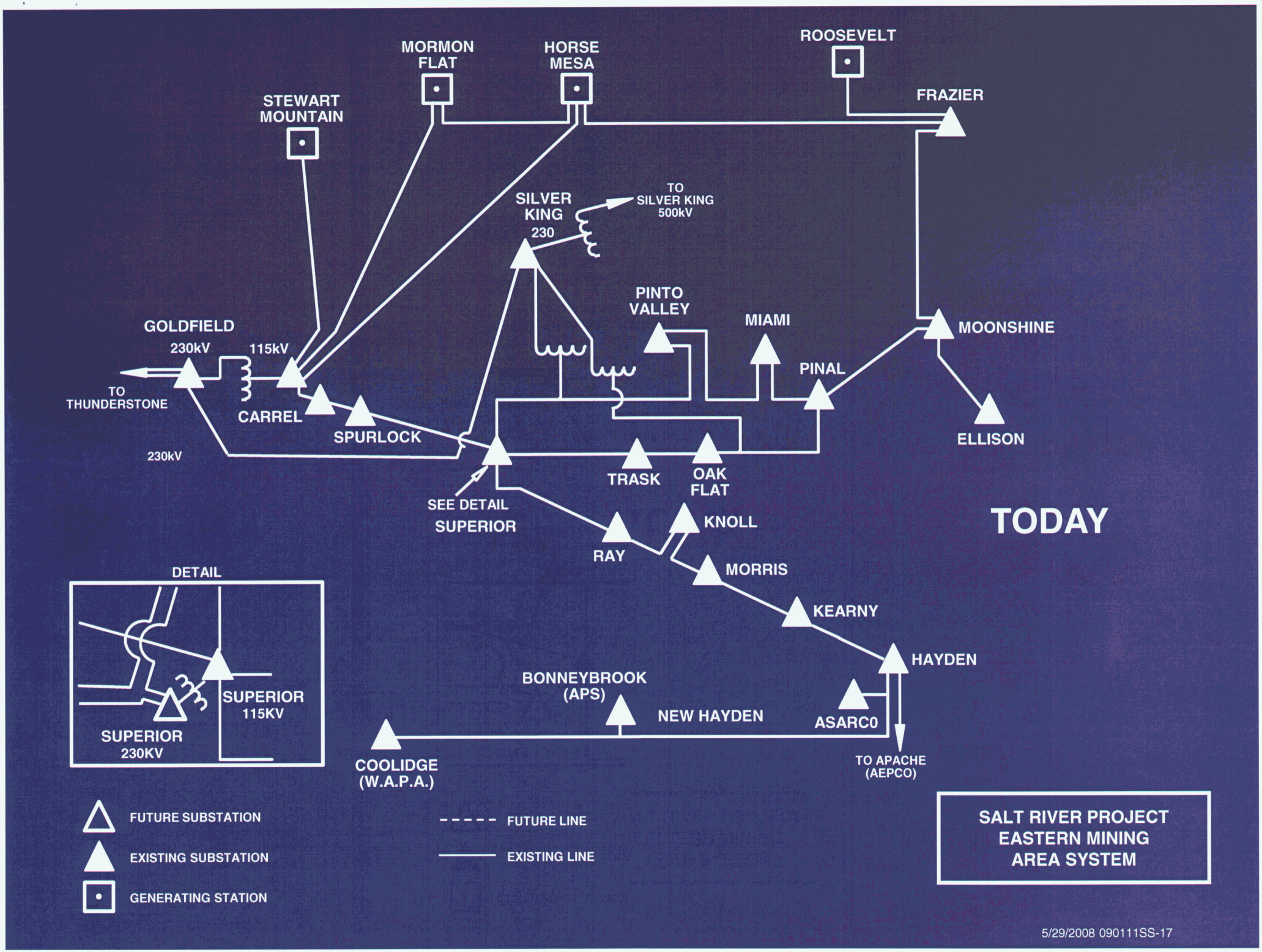
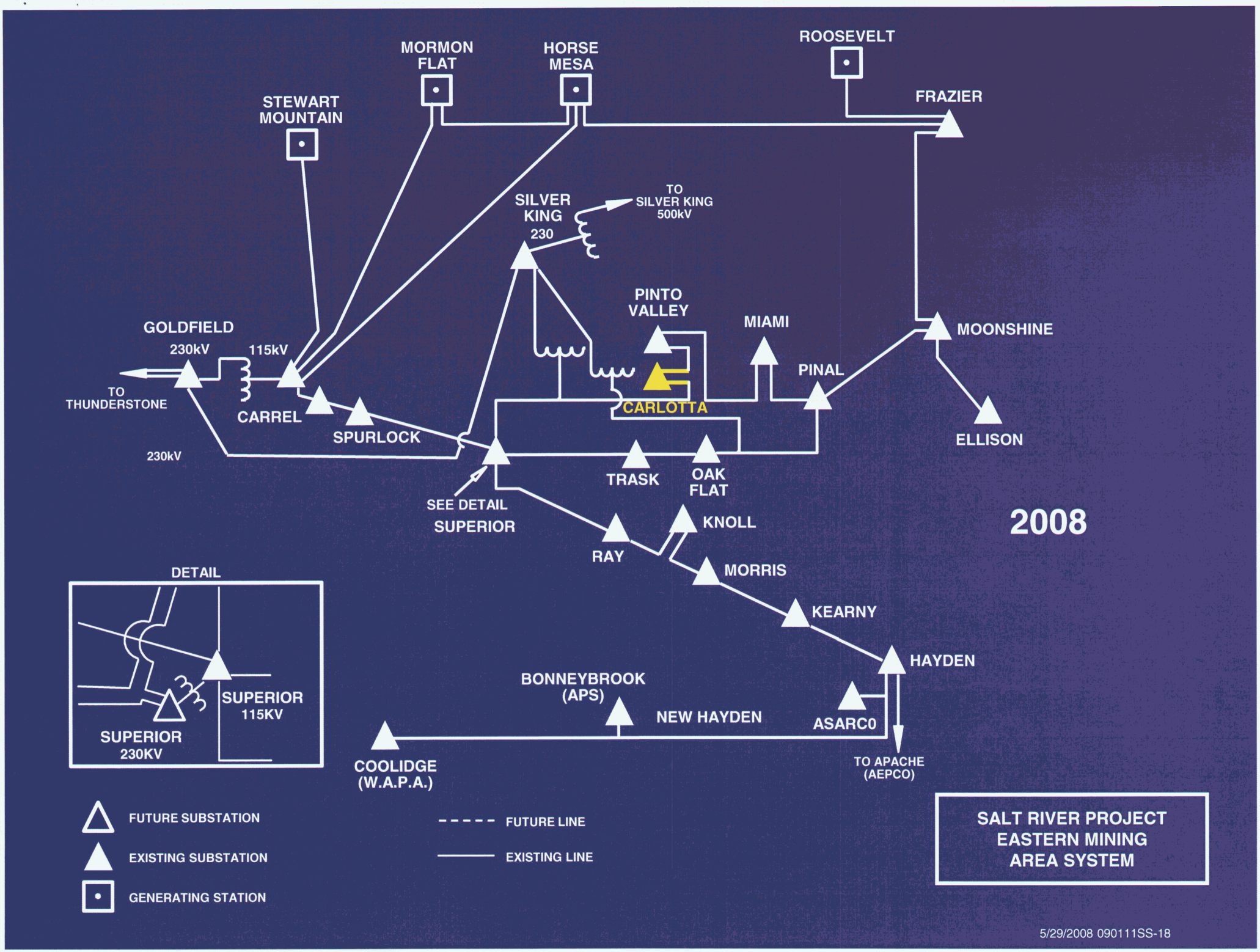
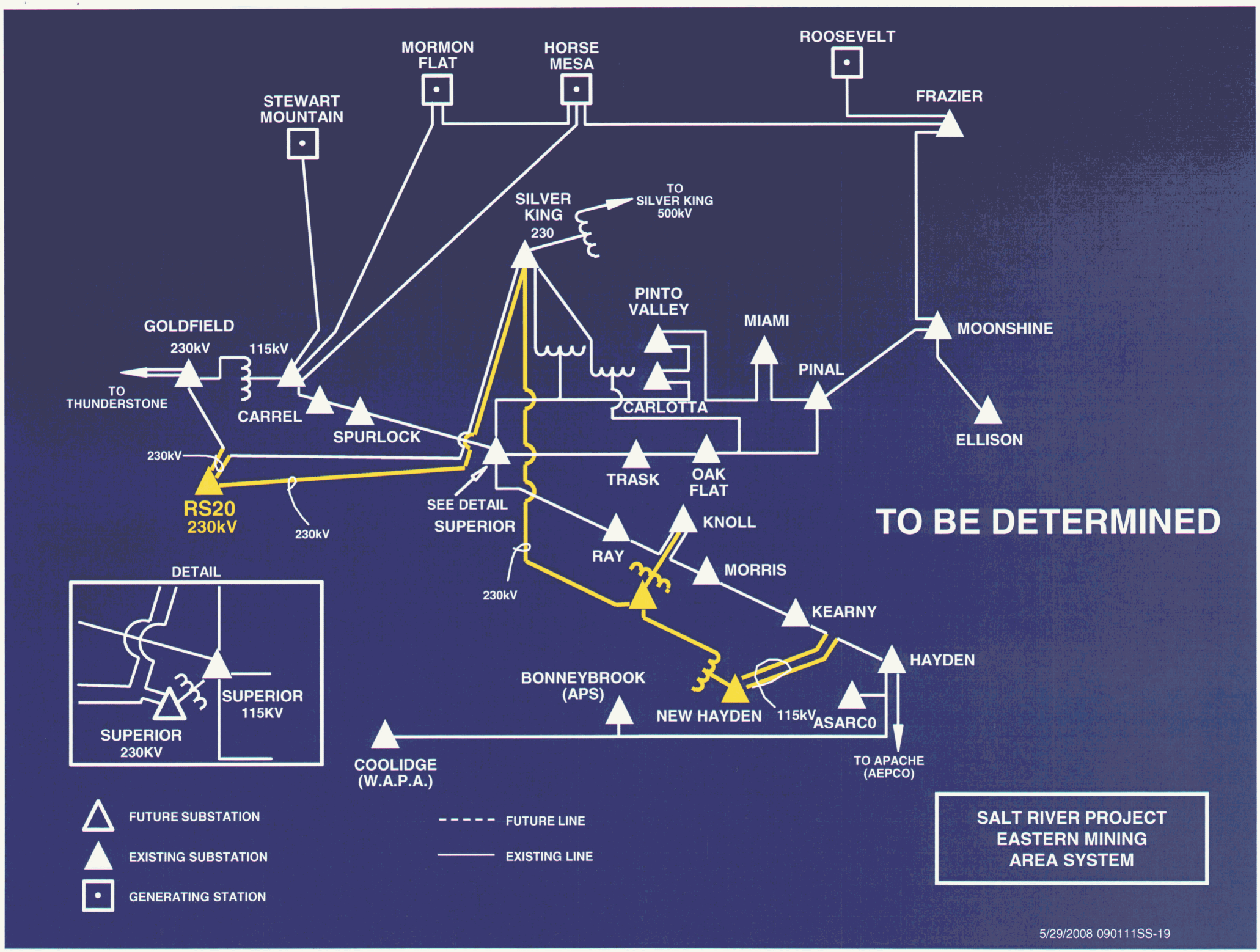

SALT RIVER PROJECT
WESTERN 230kV SYSTEM
TO BE DETERMINED
TO W.A.P.A. PINNACLE PEAK
TO APS PINNACLE PEAK
SRP PINNACLE PEAK
W.A.P.A.
WESTWING
DEER VALLEY (APS)
RS26
W.A.P.A.
W.A.P.A.
AGUA FRIA
ALEXANDER
PAPAGO
BRANDOW
THUNDERSTONE
To GOLDFIELD
WHITE TANKS
ROGERS
RUDD
WARD
TO APS OCOTILLO
LIBERTY (W.A.P.A.)
ORME
CORBELL
SANTAN
To BROWNING
ANDERSON
KYRENE
KNOX
SCHRADER
RS17
To RS24
DOUBLE CIRCUIT, PHASE TIED LINE
EXISTING 230kV CIRCUIT
FUTURE 230kV CIRCUIT
EXISTING 230kV SUBSTATIONS
FUTURE 230kV SUBSTATIONS
GENERATING STATION
5/29/2008 090111SS-16


MORMON FLAT
HORSE MESA
ROOSEVELT
STEWART MOUNTAIN
FRAZIER
SILVER KING 230
TO SILVER KING 500kV
PINTO VALLEY
MIAMI
MOONSHINE
GOLDFIELD
230kV
115kV
PINAL
TO THUNDERSTONE
CARREL
SPURLOCK
ELLISON
230kV
TRASK
OAK FLAT
SEE DETAIL
SUPERIOR
KNOLL
TODAY
RAY
MORRIS
DETAIL
KEARNY
HAYDEN
SUPERIOR 115KV
SUPERIOR 230KV
BONNEYBROOK (APS)
NEW HAYDEN
ASARCO
COOLIDGE (W.A.P.A.)
TO APACHE (AEPCO)
FUTURE SUBSTATION
EXISTING SUBSTATION
GENERATING STATION
FUTURE LINE
EXISTING LINE
SALT RIVER PROJECT
EASTERN MINING
AREA SYSTEM
5/29/2008 090111SS-17


ROOSEVELT
MORMON FLAT
HORSE MESA
FRAZIER
STEWART MOUNTAIN
SILVER KING
230
TO SILVER KING 500kV
PINTO VALLEY
MIAMI
MOONSHINE
GOLDFIELD
230kV
115kV
PINAL
TO THUNDERSTONE
CARREL
CARLOTTA
SPURLOCK
ELLISON
230kV
TRASK
OAK FLAT
SEE DETAIL
SUPERIOR
KNOLL
2008
RAY
MORRIS
DETAIL
KEARNY
HAYDEN
SUPERIOR 115KV
SUPERIOR 230KV
BONNEYBROOK (APS)
NEW HAYDEN
ASARCO
COOLIDGE (W.A.P.A.)
TO APACHE (AEPCO)
FUTURE SUBSTATION
EXISTING SUBSTATION
GENERATING STATION
FUTURE LINE
EXISTING LINE
SALT RIVER PROJECT
EASTERN MINING
AREA SYSTEM
5/29/2008 090111SS-18


MORMON FLAT
HORSE MESA
ROOSEVELT
STEWART MOUNTAIN
FRAZIER
SILVER KING
230
TO SILVER KING 500kV
PINTO VALLEY
MIAMI
MOONSHINE
GOLDFIELD
230kV
115kV
TO THUNDERSTONE
CARREL
SPURLOCK
CARLOTTA
PINAL
ELLISON
230kV
RS20
230kV
230kV
SEE DETAIL
SUPERIOR
TRASK
OAK FLAT
KNOLL
RAY
MORRIS
230kV
KEARNY
HAYDEN
BONNEYBROOK (APS)
NEW HAYDEN
115kV
ASARCO
COOLIDGE (W.A.P.A.)
TO APACHE (AEPCO)
DETAIL
SUPERIOR 115KV
SUPERIOR 230KV
TO BE DETERMINED
FUTURE SUBSTATION
EXISTING SUBSTATION
GENERATING STATION
FUTURE LINE
EXISTING LINE
SALT RIVER PROJECT
EASTERN MINING
AREA SYSTEM
5/29/2008 090111SS-19

Summary Status

Project	I/S	Status	Study	Forum
Hassayampa – Pinal West 500kV	2008	Construction	Yes	CATS/ CATS HV/WATS/SEV E&O/ WECC SRWG, TSS
Pinal West – Browning 500kV	2011	Design/ ROW	Yes	CATS/CATS HV/WATS/SEV E&O/ WECC SRWG, TSS
Desert Basin – Pinal South 230kV	2011	Design	Yes	CATS HV/WECC SRWG, TSS
Pinal South – Southeast Valley 230kV	2011	Design	Yes	CATS HV
RS24 230kV Transmission Project	2012	Siting	Yes	
RS26 Transmission Project	2014	Pre Siting	Yes	
Carlotta 115kV Substation	2008	Construction	Yes	
None				

Summary Status

Types of studies performed for the various projects:

- N-0, N-1, N-2 contingency studies
- Transient and Post Transient voltage analyses
- Stability analyses
- Short circuit analyses

Reports where these projects may be found:

- CATS, CATS HV, CATS EHV, SWAT, WestConnect, WATS, WECC Annual Study Plan Report

SRP Changes from 4th BTA to 5th BTA

Completed Projects

- Browning – Dinosaur 230kV in service
- Liberty - Orme 230kV termination into Rudd complete
- Anderson – Orme #2 230kV created
- Carrel 115kV Project in service

SRP Changes from 4th BTA to 5th BTA

500kV Projects

2008 *Pinal West – Santa Rosa*

Incorporated in Pinal West – Browning in 2011, Santa Rosa loop in deferred indefinitely

2010 *Raceway – Pinnacle Peak*

Now TS9 – Pinnacle Peak

2011 *Santa Rosa – Browning*

Now Pinal West – Browning

230kV Projects

2012 *RS24 230kV Transmission Project*

New project

115kV Projects

2008 *Carlotta 115kV Substation*

New customer substation

Arizona Corporation Commission 2008 Biennial Transmission Assessment Workshop I

CATS-EHV 2007 Studies
Ten Year Snapshot and N-1-1

Jose Silva
Salt River Project

Phoenix, Arizona
May 22-23, 2008

Introduction

- The Ten Year Snapshot Study is an assessment of the ten year plans developed by transmission owners in Central Arizona.
- The analysis consisted of conducting N-0 and N-1 power flow analyses which determined the adequacy of the ten year plan.
- N-1-1 power flow analyses were conducted to show the criticalness of individual participant projects in the ten year plan.
- Comparative analysis of the transmission system were performed at the tenth year time frame.

CATS-EHV Area

Transmission Participants

- Arizona Public Service
- Salt River Project
- Southwest Transmission Cooperative
- Tucson Electric Power
- Western Area Power Administration

Preliminary Work

- Presented thermal N-0 and N-1 studies on 2016 base case to CATS-EHV members.
- Agreed on planned projects and basic reports.
- Requested verification of results and corrections (islanding, divergence, and overloading) from members.
- Applied corrections to 2016 base case.

N-0 Thermal Results

- The Ten Year Snapshot Study N-0 results showed that there were no valid overloaded elements the base case.

N-1 Thermal Results

- Results showed that all the N-1 divergence solutions were resolvable either by operational solutions or correct modeling of the transmission system during a contingency.
- Twenty-seven N-1 contingencies produced overload conditions of other transmission elements.
- N-1 contingencies overload conditions associated with Western Area Power transmission elements were not resolved.
- The voltage deviation for the N-1 analysis showed 67 buses with deviations greater than five percent.

N-1-1 Participant Plan Projects

Case Code	Outage (date anticipated in service)
APS01	Harquahala Junction (Palo Verde)-TS5 500kV line (2009)
APS02	TS5-TS1 230kV line (2009)
APS03	Raceway-Avery 230kV line (2009)
APS04	Pinnacle Peak-TS6-Avery 230kV line (2010)
APS05	Palm Valley-TS2-TS1 230kV line (2010)
APS06	Raceway-Pinnacle Peak 500kV line (2010)
APS07	Raceway 500kV to 230kV transformer (2010)
APS08	TS5-Raceway 500kV line (2012)
APS09	Hassayampa-North Gila 500kV ckt 2 (2012)
APS10	Desert Basin-Pinal South 230kV line (2011) [1]
SRP03	Pinal South – Sundance 230kV line (2011) [2]
SRP04	Hassayampa - Pinal West 500kV line (2008)
SRP05	Second Knoll-Cholla, Second Knoll-Coronado 500kV line (2009)
SRP06	Pinal South - Southeast Valley 500kV line (2011)
SRP07	Dinosaur-Browning 230kV line (2007)
TEP01	Pinal West 500/345kV transformer (2008)
TEP02	Pinal South-Tortolita 500kV line (2011)

[1] Desert Basin - Pinal South 230kV line is listed as an APS project: however, the line is an SRP managed project.

[2] Pinal South - Sundance 230kV line is listed as an SRP project; however, the line is an APS managed project.

N-1-1 Thermal Results

- All N-1-1 base case studies resulted in new contingencies that produced diverging solutions not found in the N-1 analysis.
- All N-1-1 base case studies produced new or worsening voltage deviations for contingencies in the contingency list.
- Only the APS 230kV Raceway–Avery project did not produce an additional overload above those found in the N-1 analysis.

Conclusion

The purpose of the studies was to discover potential problems and show the criticalness of individual projects to the ten year plan. The overall results indicate additional detail is required to resolve potential problems in the ten year plan.

These may be resolved by:

- Incorporating corrections to base case model.
- Problems, such as those associated with voltage, may dissipate as system model improves. This includes the insertion of voltage devices and future generation not model in study base case due the time frame for the study.

All individual participant projects showed a criticalness to the ten year plan.

Questions ?

Contact Information:

Jose Silva
Salt River Project
Phone (602) 236-0962
Email Jose.Silva@srpnet.com

NERC MANDATORY RELIABILITY STANDARDS

Arizona Corporation Commission

BTA Workshop

Presenter: Steven Cobb

May 23, 2008

TOPICS

- Evolution of the Standards Environment
- FERC/NERC/WECC Roles
- Registered Entities
- Compliance Overview
- Standards Overview
- Current & Future Challenges

IT ALL BEGINS WHEN THE LIGHTS GO OUT

- 1965 New York Blackout
- 1967 NERC and Regional Entities Created
  - Voluntary Policies Developed
- 2003 Northeast Blackout
- 2005 Energy Policy Act (EPAct)
- 2007 Mandatory Standards

SRP

NEW REGULATORY ENVIRONMENT

- EPAct 2005
  - Created New Section in Federal Power Act (Section 215)
  - Empowered Federal Energy Regulatory Commission (FERC) to Regulate Bulk Power System Reliability
- FERC Responsibilities Include
  - Approval of Standards
  - Approval of Sanctions
  - Certification of Electric Reliability Organization (ERO)

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NEW REGULATORY ENVIRONMENT

- NERC – North American Electric Reliability Corporation
  - Entity Certified as the ERO
  - NERC Develops and Enforces Standards
- WECC – Western Electricity Coordinating Council
  - NERC Delegated to WECC Enforcement Authority of Mandatory Standards
  - WECC Audits Registered Entities in the Western Interconnection

NERC FUNCTIONAL MODEL

- Identifies the Functions and Associated Tasks Necessary to Plan and Operate the Bulk Electric System in a Reliable Manner
- Defines the Entities who Perform these Tasks

REGISTERED ENTITIES

- Registration
  - Users, Owners, and Operators of the Bulk Power System Who have a Material Impact on the Bulk Power System must Register
- Functional Model Defines Most Registered Entities
- Registered Entities must Comply with Applicable NERC Mandatory Standards
- Entities can Register for 15 Different Reliability Functions

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REGISTERED ENTITIES - TRANS

- Planning Authority
- Resource Planner
- Transmission Owner
- Transmission Operator
- Transmission Planner
- Transmission Service Provider
- Distribution Provider

COMPLIANCE MONITORING

- Compliance Audits
- Self-Certifications
- Spot Checking
- Compliance Violation Investigations
- Self-Reporting
- Periodic Data Submittals
- Exception Reporting
- Complaints

NERC SANCTION TABLE

Appendix A: Base Penalty Amount Table

The following lists the Base Penalty amounts corresponding to combinations of violation risk factor and violation severity factor.

	Violation Severity Level							
Violation Risk Factor	Lower		Moderate		High		Severe	
	Range Limits		Range Limits		Range Limits		Range Limits	
	Low	High	Low	High	Low	High	Low	High
Lower	$1,000	$3,000	$2,000	$7,500	$3,000	$15,000	$5,000	$25,000
Medium	$2,000	$30,000	$4,000	$100,000	$6,000	$200,000	$10,000	$335,000
High	$4,000	$125,000	$8,000	$300,000	$12,000	$625,000	$20,000	$1,000,000

COMPLIANCE CHALLENGES

- Developing a Compliance Culture
  - All Inclusive Corporate Approach
- Documentation
  - If It's Not Documented, You Are Not Compliant

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STANDARDS

- Number of Standard "Families" = 14
- Number of FERC Approved Standards = 102
  - Specific to Transmission = 49
- NERC Regional Standards = 8
- Number of Standards Projects in Development = 30
- Full List of FERC Approved Standards
  - http://www.nerc.com/~filez/standards/Reliability_Standards_Regulatory_Approved.html

TRANSMISSION STANDARDS

- FAC – Facilities Design, Connections, & Maintenance (9)
- MOD – Modeling, Data, and Analysis (10)
- PRC – Protection and Control (17)
- TOP – Transmission Operations (9)
- TPL – Transmission Planning (4)

CHALLENGES

- Standards Development is Significantly Influenced by Eastern Entities
  - Western Interconnection has Regional Differences
  - Population Density is Less
    - Long Lines Between Resources and Loads
- Participation on Standards Drafting Teams is Critical
  - Pay Me Now or Pay Me Much More Later

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PLANNING AUTHORITY

- Planning Authority is a Registered Entity
  - It is not Defined in the NERC Functional Model
- Planning Authority Equivalent in Function to a Regional Transmission Organization
- Western Interconnection uses Coordination
  - There is No Planning Authority

TPL – TRANSMISSION PLANNING

- Remedial Action Schemes (RAS)
  - Relay Systems Used to Optimize Transmission Facilities
  - Not Used Much in the Eastern Interconnection
  - Extensively Used in the Western Interconnection
  - Western Transmission Operators Had to Make Significant Efforts to Get Eastern Interests to Accept the RAS Concept as an Integral Part of Transmission Design

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QUESTIONS?

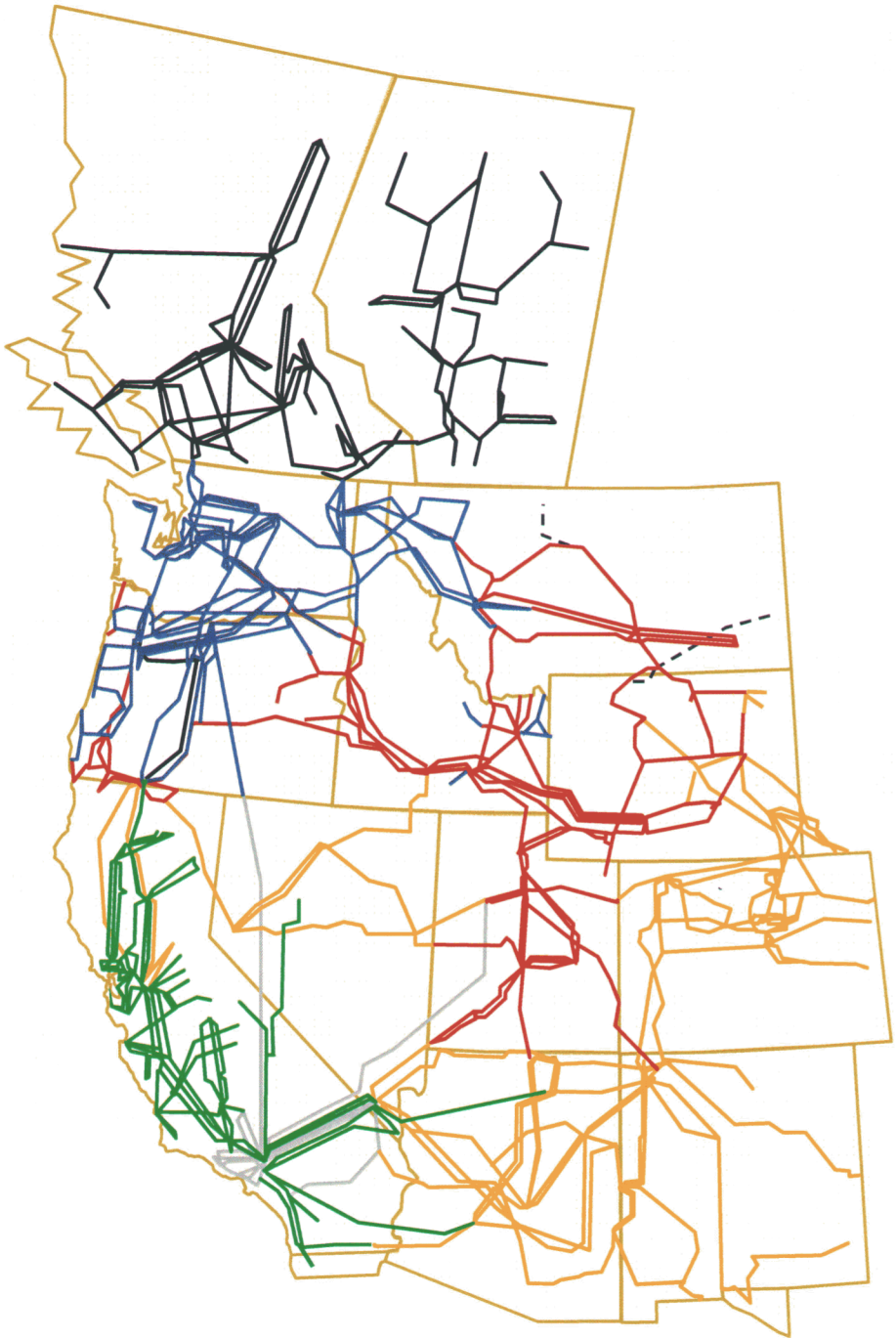
Arizona Corporation Commission

Fifth Biennial Transmission Assessment Workshop

SWAT Subregional Planning Group Update

Robert E. Kondziolka, P.E.
Manager, Transmission Planning
Salt River Project

May 23, 2008
Phoenix, Arizona

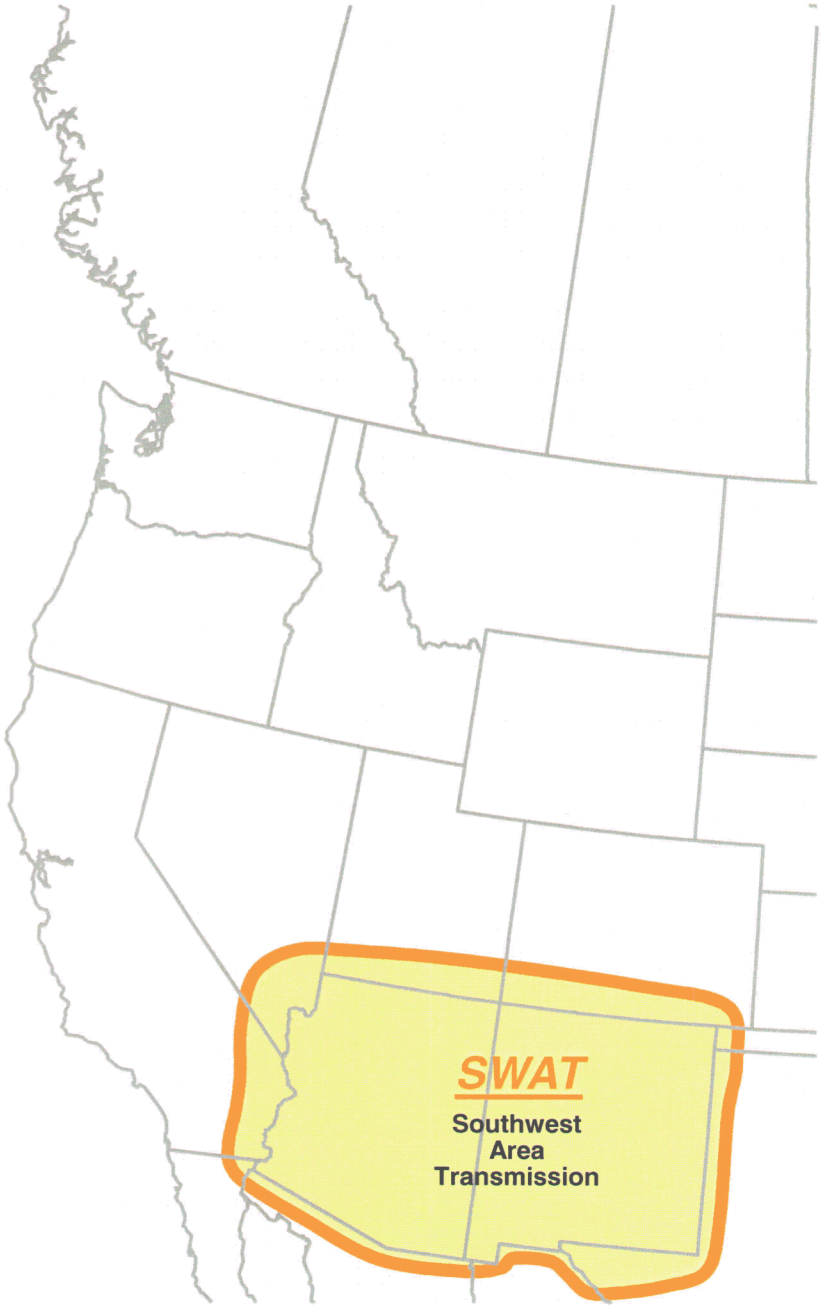


WECC
Subregional Planning Groups
Major Transmission Facilities

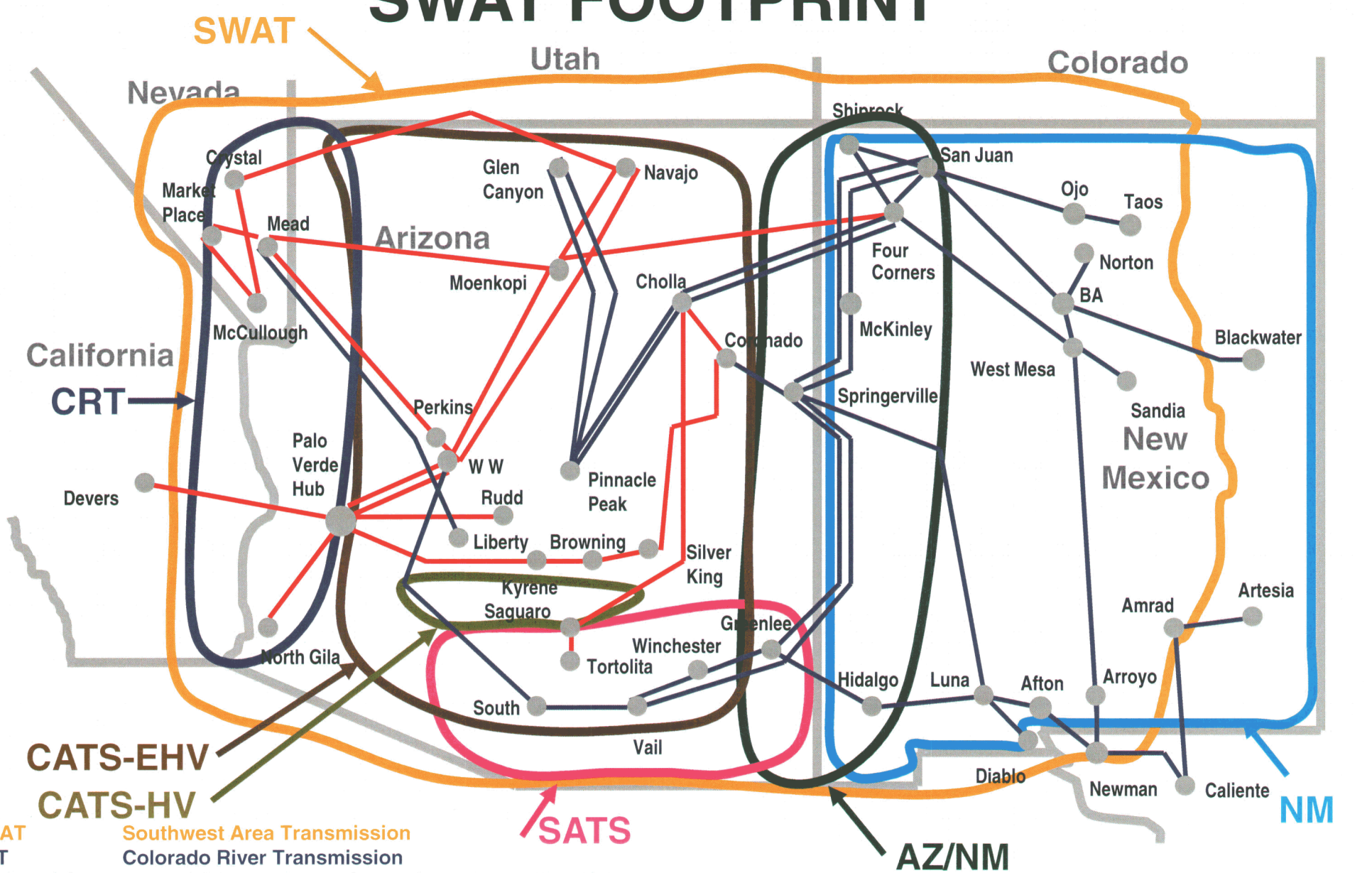
- ColumbiaGrid
- Northern Tier Transmission Group (NTTG)
- Northwest Transmission Assessment Committee (NTAC) that are not part of ColumbiaGrid or NTTG
- WestConnect (SWAT, CCPG & Sierra)
- California ISO
- Pacific Southwest Planning Association that are not part of CAISO
- Other Facilities

SWAT Footprint
One of the WestConnect Sub-Regional Planning Groups

http://www.westconnect.com



SWAT FOOTPRINT



SWAT	Southwest Area Transmission
CRT	Colorado River Transmission
CATS – EHV	Central Arizona Transmission Study Extra High Voltage
CATS – HV	Central Arizona Transmission Study High Voltage
SATS	Southeast Arizona Transmission Study
AZ/NM	Arizona New Mexico Regional Transmission
NM	New Mexico Transmission

500kV
345kV

Web Sites

WestConnect: http://www.westconnect.com/init_swat.php

SWAT Organization Chairs

- Oversight Committee – Robert Kondziolka
- CRT Subcommittee – Ken Bagley*
- CATS-EHV Subcommittee – Gary Romero*
- CATS-HV Subcommittee – Joe Herrera*
- SATS Subcommittee – Ron Belval
- AZ/NM Subcommittee – Peter Krzykos
- NM Subcommittee – Tom Duane
- Short Circuit Working Group – David Wheeler
- Renewable Energy Transmission Task Force – Peter Krzykos
- Black Start & Restoration Task Force – Tom Isham**
- Common Corridor Structure Separation Task Force – Brian Keel

* Non Transmission Provider

** Task Force Work Completed – No Longer Active

SWAT

Southwest Area Transmission

Purpose – To provide an open, transparent, and collaborative forum for all stakeholders to submit input and projects to a subregional transmission planning effort in order to develop a high level transmission plan that maximizes regional benefits, while making efficient use of the existing transmission system.

Principles:

- Open to all sectors of the electrical industry and regulators
- Collaborative planning forum for data exchange and coordination
- Identify common long range transmission needs
- Comparable technical study of alternatives
- Coordinate and integrate with WECC TEPPC and other subregional planning groups

SWAT 2007 Highlights

- **AZ/NM Subcommittee monitored and provided peer review for numerous projects:**
  - Navajo Transmission Project
  - Navajo South Transmission
  - Desert Rock Generation
  - Springerville 4 Generation
  - TransWest Express
  - High Plains Express
- **CATS HV performed 2016 studies and completed report including:**
  - Tenth year snapshot study
  - Planned project outage studies
  - Defined load growth accommodation limit beyond 2016
- **CATS EHV completed ACC BTA study requirements**
  - Tenth year snapshot and N-1-1 outage studies
  - Common corridor and extreme contingency studies
  - RMR Studies

SWAT 2007 Highlights

- **CRT Subcommittee monitored and provided peer review for numerous projects:**
  - Path 49 Upgrades
  - EOR 9300
  - Devers-Palo Verde 2
  - Topock-Mead Upgrades
  - IID Internal Upgrades
  - Unisource-Mohave County Upgrades
- **SATS performed 2010, 2016 and saturated load studies and issued an interim report and 2008 study plan**
- **Short Circuit Work Group**
- **Black Start & Restoration Task Force**
- **NM Study Group performed two key studies**
  - Southern NM Transmission Expansion Study
  - Conceptual Wind Collector System
- **SWAT Renewable Task Force addressed ACC BTA requirement**
  - Arizona renewable potential
  - Arizona TTC/ATC
  - Arizona renewable conceptual transmission

Questions?

SWAT
Southwest Area Transmission

Contact Information

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