Xcel Energy DRAFT — EPM Systems and Process Overview

Dates
- **ESD** Estimated Start Date
- **EISD** Estimated In-Service Date
- **ECD** Estimated Completion Date
- **AISD** Actual In-Service Date
- **ACD** Actual Completion Date

Key data flows:
- RED=Parent
- BLUE=Child
- GREEN=Forecast
- PURPLE=Xcel Labor

Capital Expenditures and the WBS:
- Materials or Goods
- Services or Labor (Xcel Employee labor+benefits, Contract labor)
- Indirects

Key Object Accounts (F0911.GLOBJ):
- CWIP (730000-733998, 733999=CWIP clearing) *FERC install=010700*
- RWIP (740000-743998, 743999=RWIP clearing) *FERC removal=010800*
- O&M (700000-729999)
- Deferred (748000-748998, 748999=Deferred clearing)
- AFUDC (733500=Debt, 733600=Equity)
- Overheads (733200=CWIP, 743200=RWIP)

Other Information:
- Capital projects are **budgeted** at the **parent** project level
- **Actuals** are posted to the **child**ren
- Installation (CWIP) and Removal (RWIP) can be tracked using the same parent work order

Corporate A/P and Non Energy Supply Work Management, Purchasing, Inventory

Passport

Key: Passport WO# is the Subledger#

*A **Standard PO** can have partial payments (not releases)*
*A **Blanket PO** can have recurring **releases**, which are child PO's. A release PO belongs to a blanket PO; you can't have a release without a blanket.*

Passport is the Corporate Accounts Payable system and contains Purchase Orders (material), Contracts (services), work orders, vendor invoices.

Enter Time — Xcel Employee (Not ES) — Labor (hours)

Task# *(00-99)*

Send vendor data to Maximo

Receive A/P data from Maximo

Receive time from IQN

Labor (hours) Weekly feed

WebMethods (WBI, MQ Series, EAI) to distribute next WO#

GetNextWO Number 1xxxxxxx

Facilities, Transmission, or Distribution may request project number from Powerplant, not CBS.

Nuclear Passport *(future)* *Material, PO*

Passport Project *every minute*

Request Child# / Receive Child#

Request Parent# / Receive Parent#

Passport Staging table

HR, Payroll, Time, Expenses

HRIS and Time Tracking

Clarity *Time entry by IBM*

IQN *Time entry*

PTRS *Time entry*

Concur *employee expenses*

Peoplesoft department number contains employees and their labor costs.

Labor (hours)

Peoplesoft HR, Payroll

pay

Realtime CICS — batch

Time data sent to JDE on last working day of month

Time *Labor costing and distribution*

REQ# 14.7 ACR# 1202564

GL Time is linked to JDE at a higher level because we can't show costs by employee.

GL Time contains: Maximo WO# in Cost Object 1 Subledger and Cost Object 1

BO — Time reports

Labor at Maximo work order level, not detail level *batch file monthly*

ES Account String Child (not parent) WO#

Vendor

Enter Time — Outside contractor — Enter Time

Labor (hours) — Labor (hours)

1 PO Create PO & send to vendor

2 Receive product or service & enter invoice

Ship product or perform service & send invoice

Product — Service — invoice

3 Pay invoice — payment

Vendor info

Accounts payable Transaction *And all charges*

5 Perform work & collect Actuals
Energy Supply Work Management, Purchasing, Inventory

Maximo

Key: Maximo WO#

Maximo contains Work orders, Purchase Orders/Contracts, Vendors (from Passport)

No parent numbers in Maximo. Only Child numbers in Maximo. Contracts put "M" in front of PO#

Receive vendor data from Passport

Send A/P data to Passport

Realtime interface (via WebMethods): *Upon action, transfer Maximo Account String+data to ES JDE.*

Actions: A/P Data
Receipt: upon save
Material: upon save
Labor: upon approval

Vendor Data

Enter Time — Xcel Employee (ES) — Labor (hours)

Labor hours Realtime TCP/IP

Approve

Maximo Database

Material use tax? (MATUSETRANS)
Material Receipts (MATRECTRANS)
Service Receipts (SERVRECTRANS)
Invoice Receipts (INVOICETRANS)
Invoice Transactions (INVTRANS)
Labor Transactions (LABTRANS)

Save — Staging table — Assign object account

Chart of Accounts

Unix script (every 2 secs)

FERC Uniform System of Accounts

2 Create and validate Parent — Budget & Forecast

CBS (Budget and Forecast) — ALS

Key: Parent ID, Budget Combo Number

CBS contains 6 years of forecast data, current year YTD actuals and remaining months forecast.

*Typically a few minutes from **REV** to **VAL**. Once in **VAL** status, can create Child in Powerplant.*

Need to set up combo in CBS manually because CBS validates the combo against corporate JDE

1 UNA ES Create Parent — Get project ID

2 REV ES Submit Parent for validation — VAL

ES Financial Analyst (or Project Lead)

Automatically Email project lead if errors from Powerplant

2c REJ ES fix errors

2a ES enter data into Unifier

2b ES create budget combos *Any time after parent created*

3 SUB CAA validate Parent and send to Powerplant — *Many (e.g. 20) times per day*

Send to Powerplant

CAA

- Parent#
- ESD
- EISD
- ECD

Create (real time)
Update (batch 7 pm daily)

Error table — Yes

CBS Staging table

Batch Monitor: Validate parent — Errors? — No

Open — Convert Powerplant to JDE data and send to JDE

Validated parent

ESD, EISD, ECD

Send 'VAL' to CBS — Active/ Approved

Upon arrival of Parent from Powerplant (status was automatically set to 'Active/ Approved'), send 'VAL' status to CBS.

Actuals (rolled to Parent) From JDE to CBS

Corp Fin Import forecast *Update*

ES Import forecast *Proof*

Project data — no — Errors?

Fixed forecast — Unifier forecast — CBS forecast

Budget Combo data — yes

Update dates

New Staging table — Errors? — no — yes

New Process

Update dates

When dates are updated in Powerplant, they get pushed to JDE and then CBS

Updated dates

WO Control — TBD?

Send update to CBS

ES Create Journal Entries / accruals as needed

ES Financial Analyst (or Project Lead)

3 Create Child(ren) — Fixed Assets

Powerplant (Fixed Asset Accounting – Subledger)

Key: Parent ID or Child ID

***Powerplant** is the system of record for corporate assets.*
***Capital Asset Accounting (CAA)** performs the Capitalization Policy Test to ensure a project meets criteria for capitalization and calculates AFUDC.*
***Powerplant calculates:** plant additions, book and tax depreciation, equity and debt AFUDC, deferred income tax expense.*

1a ES complete **Preliminary Unit Estimate**

1b Initiated — ES Create ES Financial (or fix) Child Analyst (or Project Lead)

2 CAA Validate Child — Errors? — Open / No — CAA Set status to Open and send to JDE — *Typically a few minutes for CAA to validate child*

Yes *(status remains 'Initiated')*

complete — *Later, upon receipt of **In Service Unit Estimate**, CAA change status of Child to 'Complete'*

ESD, EISD, ECD — *To JDE Via EAI every 10 minutes* — JDE Staging table

Validated parent

ESD, EISD, ECD

Passport Details Data feed

Active/ Approved

4 Create Maximo Account Strings — Translate account string

ES JDE

"**Bolt-On**" connector to JDE P5548201 — *Create new ES Account Strings (manual batch process)*

ES Financial Analyst (or Project Lead) — *Email project lead to start charging in Maximo*

Child Data sent from JDE to ESJDE 4x per day at 10 am, 1 pm, 4 pm, 10 pm. After these times, ES Financial Analyst creates Maximo Account strings using the Bolt-On.

Maximo Account string + data

PO and WO info only, not labor

Fix errors — Error report

3-Transfer (R550911i73) *Started by #2* — 3 — Posted transactions

2-Validation (R550911i72) *Started by #1 or manual* — 2 — Detail table

1-Translation (R550911i71) *started manually* — 1 — Staging table

Concatenate JDE Description

Unvalidated account — Validated account

ES to JDE codes

Validate account

Send COA to ES JDE

Nightly load

Translations for Capital:
Capital: ESBU (CO4) = Corp BU
ES Obj + Cost Category (CO2) = Corp Obj
(O&M: ESBU (CO4) + FERC (CO3) = Corp BU)
Cost Categories:
***PC** = Project Capital (CWIP)-most common*
***PR** = Project Removal (RWIP)-most common*
OC = Overhaul Capital (CWIP)-rare
OR = Overhaul Removal Capital (RWIP)-rare
PY=CWIP & RWIP-rare
All other codes are typically O&M which is not in current scope.

1. Batch process: nightly unix script
2. Posting process (R09801): scheduled job every morning 7:30 am
3. Transfer non-error transactions to Corp JDE (nightly)

GL

Corporate JDE (General Ledger)

Summarized Passport Transactions, (PO, WO, etc) Payment Details

***JDE** contains all actuals transactions and Journal Entries which are entered directly into JDE*

Cost Object 1 (F0911T.GLABR1) contains Maximo WO#

Employee Name + Title

Staging tables

Good transactions *nightly*

Doc Type (GLDCT non-labor):
JE=Journal Entry (Manual adjustments, accruals)
PP=Prior Period Journal Entry
UB=SC Misc Expense Allocations
XB=ES-JDE (Maximo) Materials
XD=Time
XE=Passport A/P
XH=FleetAnywhere
XI=Powerplant (AFUDC, overhead)
XK=Passport Materials
XL=Concur (Xcel employee expenses)
XU=Nuclear Passport A/P (future)
XV=Nuclear Passport Materials (future)

Pending — *Create child in Powerplant automatically creates child in JDE with estimated dates and status='pending'.*

Active/ Approved — *Later, when child is validated by CAA in Powerplant, status changes to 'Active/Approved'.*

Next: create Maximo Account Strings (after 10 am, 1 pm, 4 pm, 10 pm)

REQ# 14.6 ACR# 1202567

Corporate Financial Systems

1 Initiate Ideas and projects — Skire Unifier

Powerplant Interface

CBS Interface

ES Fix forecast

ES Fix dates

Fixed dates

Unifier forecast

ESD, EISD, ECD

As-built (future)

6 Update Dates & Forecasts

Update Forecast *On demand*

6a **Update Dates** *On demand*

6b ES update dates to Powerplant first, then forecast to CBS. *Because dates can affect forecast. For example, if estimated completion date moves up, can't forecast beyond this new date.*

REQ# 14.5, 14.5.1 ACR# 1368994

ESD, EISD, ECD *As-built (future)*

REQ# 14.8, 14.9, 14.10

Data Warehouse Interface

Receive Actuals

Create Estimate

Estimates

Actuals to Unifier Via Web Service

7 Report results — Reporting & Analytics

Unifier uses Crystal and Xcelsius for reporting

Crystal, Xcelsius *Run reports*

Reports

REQ# 14.12 ACR# (n/a)

E&C PPM Tool User

Primavera Interface *(included)*

LDAP Interface — **MS-Outlook Interface** — **Document Interface**

***Documentum** for plant-related document management,*
***Sharepoint** for collaboration and document management*
***Projectwise** for drawings*

Project & Portfolio Management

PPM Tool

Scope TBD

Data Warehouse

CBS Data — **Skire Data**

report — **Compare Forecast**

Powerplant Data — ESD, EISD, ECD, (ASD), AISD, ACD *As-built (future)*

Compare Dates — report — REQ# 14.4, ACR# 1196519

Feedback from Powerplant to ensure dates in Unifier match Powerplant. Ref REQ 14.4

Retirement unit data

Compare actuals to estimates — report

Actuals, Retirement units

Provide actuals & retirement unit data

Passport Data — REQ# 14.2, 14.3 ACR# 1202569

Peoplesoft Data

JDE Data

GL Time Data

JDE Transactions (from Maximo, Passport)

REQ# 14.1 ACR# (n/a)

PMP universe

REQ# 14.11 ACR# (n/a)

Business Objects *Run reports*

Total Cost Report (exists)

SOX Compliance Report (new)

Estimates to Actuals Report (new)

Maximo Data

REQ# 14.2 ACR# 1196521

Accounting String Hierarchy for ES:
JDE Parent Project Number (G/L string)
Subledger (a.k.a. "JDE Child Work Order")
Maximo Work Order

JD Edwards Account String (a.k.a. Corporate Account String) – 3 Segments:
[JDE Business Unit] (Always Required)
[JDE Object Account] (Always Required)
[Subsidiary] (often blank or '000') Subledger (when necessary; not considered part of account number)

Capital uses subledger number
O&M has no subledger number
"From" or "providing" or "performing" department
"To" or "receiving" department. The "receiving" department should always be the same as the "providing" department in Corp JDE for Energy Supply.

ESBU (a.k.a. "Financial center") translation only occurs if O&M (subledger is 05xxxxxx). If Capital, (subledger is 1xxxxxxx), then the non-labor performing department maps directly to the Corp JDE BU.

BU.ObjAcct.Subsidiary Subledger

JDE Account String - 3-segments:

230290.730400.000.W.10899135

Reporting & Analytics

Non-unitized Property

In-Service Date:
- When the commercial operation begins, such as when the line is energized or main pressurized. (CBI p. 20)
- The asset is in use or producing revenue – move the constructed asset from CWIP to Plant in-service
- AFUDC stops
- Book Depreciation begins
- Start testing
- Turn over construction project from construction manager to operations manager
- Estimated in-service date for forecasting and budgeting

Per FERC: Not to exceed 90 days 120 days (Nuclear)

Completion Date:
- After the In-Service Date (can't be earlier than in-service date)
- All costs are recognized to a [JDE Parent] work order
- "closing a work order"
- Project is done
- Ready for unitization
- Auto-unitizable assets for Distribution
- Manual unitizable assets for ES
- Review final As-Built

Per Xcel 1 day to 1 year Typically 6 months

Unitized Property

"Unitize" Date:
- As-Built form
- Turn Corp JDE Child WO into an asset
-

A **project** is defined as a **"funding parent", "funding work order" or "parent work order".** Projects are work orders that generally have one or more "child work orders" that roll up into the project. *(REF: CBS p. 6)*

Maximo Account String (a.k.a. ES Account String) - 13-segments:

230190.701500.000.W.10899135.A.AAA.P.PC.E.010800.S.230290

#	Maximo	ESJDE	JDE
13	Performing Department *(non labor)*	?	Business Unit (Cost Object 4)
12	Convenience Pmt	Cost Type 4	CT4 not used (F1620.CTABT1)
11	FERC Account (WOEQ9)	Cost Object 3	FERC Account
10	Utility Type	Cost Type 3	CT3 not used (F1620.CTABT1)
9	Cost Category (WOEQ8)	Cost Object 2	CO2 not used
8	Budget Category (WOEQ7)	Cost Type 2	CT2 not used (F1620.CTABT1)
7	Activity	Cost Object 1	CO1=Maximo/Passport WO#
6	Activity Type	Cost Type 1='A'	Cost Type 1='E' (F1620.CTAB1)
5	JDE Work Order (WOEQ6)	?	Child Work Order
4	JDE WO type	WO Type?	WO Type?
3	Subsidiary	Subsidiary?	Subsidiary?
2	Resource	Object Account?	Object Account
1	Financial Center (WOEQ5)	?	Business Unit

O&M