

EDAM Implementation Update

RIF

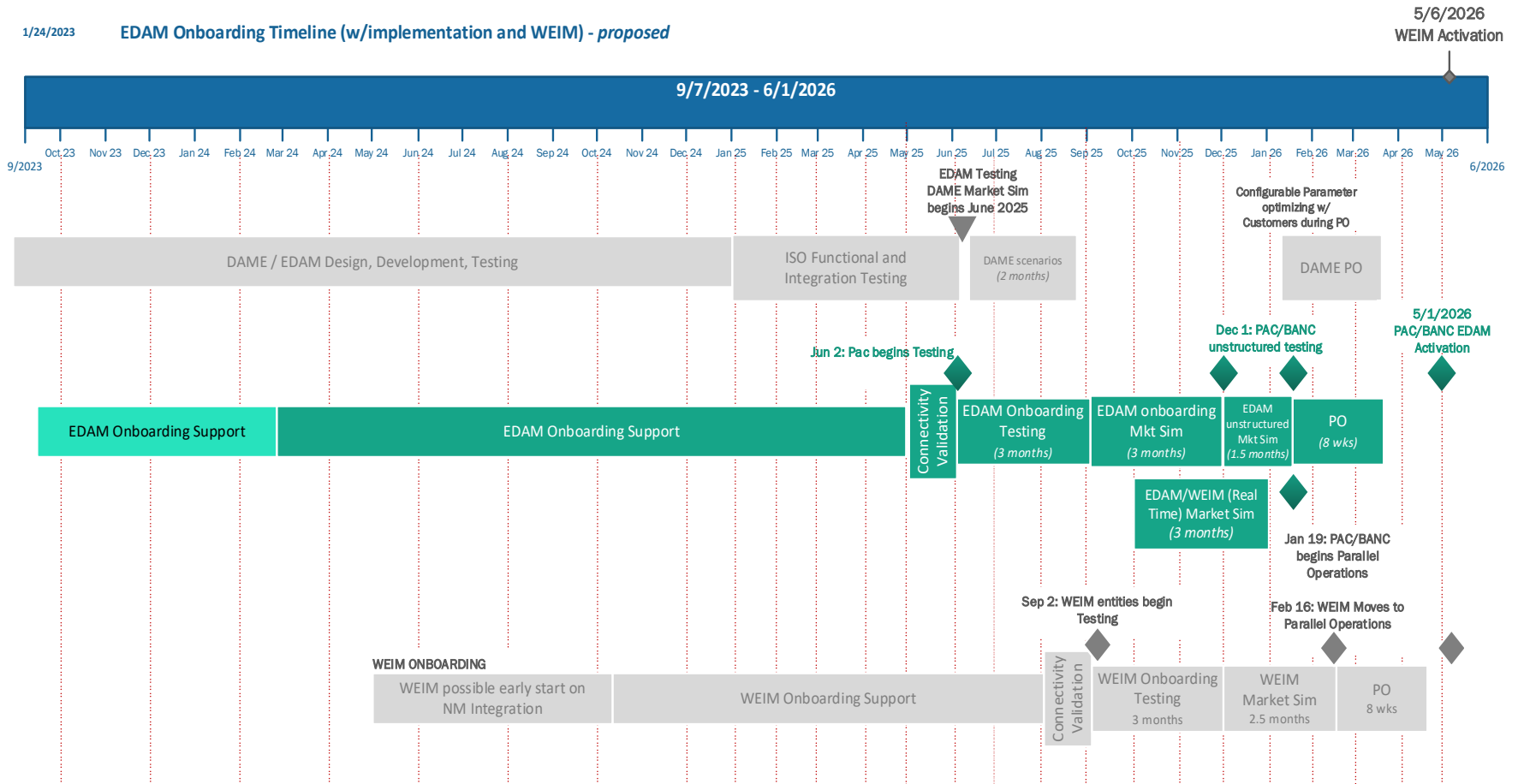
June 20, 2024



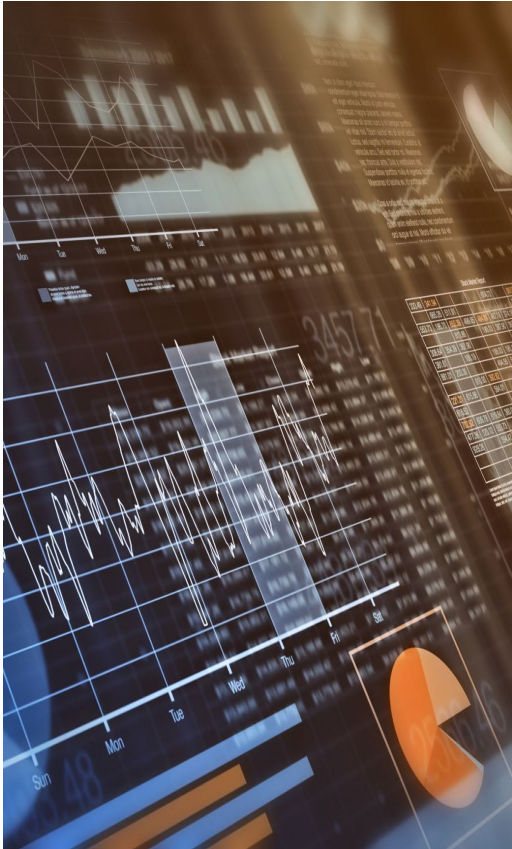
Why Do Major Implementations Fail or Get Delayed?

- Lack of needed resources and focus from internal SMEs
- Poor design and lack of system approach
- Poor requirements that fail to meet business needs
- Not done “right” the first time. Need successive (and unanticipated) iterations / phases to “fix” unanticipated but critical problems
- Lack of internal coordination / communication
- Exhaust / exceed budget, require work arounds to go live and meet deadline, then no money left to go back and “fix”
- Not thoroughly tested. Cause chaos at go live, with major operational outages, crashes

The Task: Market Activation in EDAM May 1, 2026

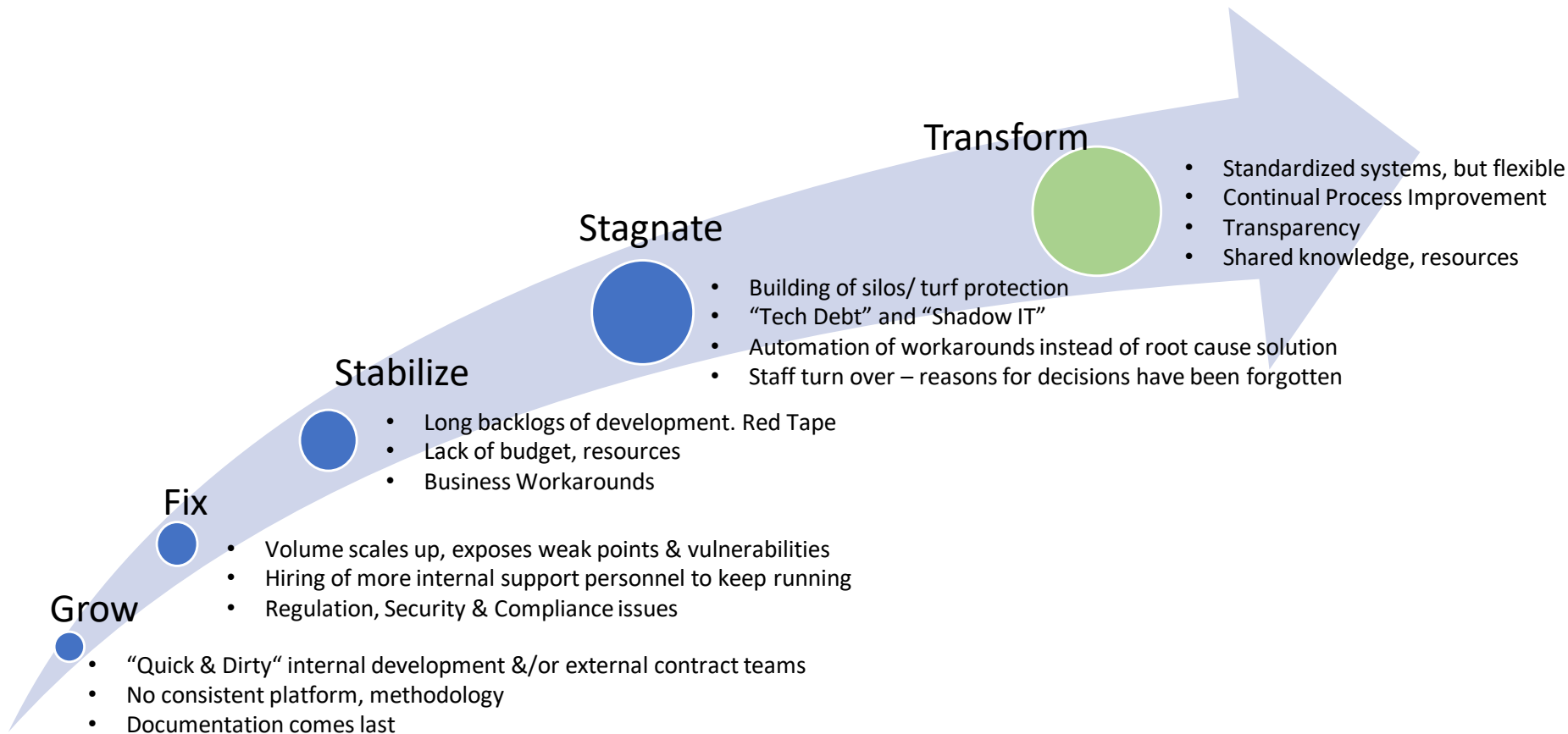


It's an IT Project, All Right!



- **PCI -> Bidding, Trading, Tagging**
- **MCG -> Control Area Scheduling, Energy Accounting**
- **OATI -> Transmission Scheduling, OASIS Management**
- **Power Settlements -> Settlements**
- **UL (RFP Process) -> VER Forecasting**
- **JLS (RFP Process) -> BA Load Calculation**
- **OSI -> EMS**
- **Endur -> System of Record**
- **ITOA (SunNet) -> Outage Management**
- **Metrix IDR -> Load Forecasting**
- **Aveva -> PI Data**
- **Itron MV90 -> Meter interrogation and data repository**

Organizational IT Lifecycle



Engagement with CAISO

- Weekly / bi-weekly Track Meetings
 - 1-Program & Project Management
 - 2-Policy & Legal
 - 3-Resource Configuration
 - 4-System Integration & Testing
 - 5-Settlements & Metering
 - 6-Training & Readiness
- Opportunity for PAC SMEs to ask questions and discuss topics with CAISO SMEs
- Ad-Hoc meetings
- CAISO EDAM Questions Log
- Vendor Forum – February 2024

Business Requirements Specifications

- PAC imported BRS Word doc into Excel spreadsheet for ease of use
- Assigned BRQs to internal stakeholders to understand impact on each department
- Stakeholder comments and questions on BRS form basis of continuing meetings with CAISO

	A	B	C	D	E	F
1	ID#	Business Feature	Requirement Type	Potential Applicant	Requirement Detail	Notes
2	EDAM-BRQ-11000	EDAM resources participate in DAM market, similar to ISO resources	Business Process	SIBR	General statement: DAM validation rules for CAISO apply to EDAM	
3	EDAM-BRQ-11010	Access Master file definition and association for EDAM:	Core	SIBR (from MF)	EDAM entity, EDAM BAA and EDAM/WEIM entity SC and resource SC definition and association	
4	EDAM-BRQ-11011	Access EDAM BAA Convergence Bidding participation flag from Master file	Core	SIBR (from MF)	Access EDAM BAA CB participation flag Access registered location, position limit, nodal constraint that are applicable for the EDAM BAA that elect CB	
5	EDAM-BRQ-11012	Access resource eligibility flags	Core	SIBR (from MF)	Access EDAM resource participation, RSE flag and eligibility flags on market product EN/AS/IR/RC from Master File, in the same manner as ISO resources	
6	EDAM-BRQ-11013	Access intertie resource eligibility flags	Core	SIBR (from MF)	Access intertie resources an, RSE flag, bid eligible flags for bids, or self-schedule only from Master File	
7	EDAM-BRQ-11014	Access DA TSR and attributes	Core	SIBR (from MF)	Access DA TSR and RSE flag, contract number (CRN), and limits from MF	
8	EDAM-BRQ-11015	Access GHG area and associated resources	Core	SIBR (from MF)	Access the defined GHG area, mapping of resources associated with the GHG area, the CLAP associated with the GHG area, GHG pseudo tie flag from Master File, and resources that are dynamically scheduled into a BAA that overlaps with a GHG regulation area	
9	EDAM-BRQ-11020	Allow EDAM LSE SC to submit non-participating load resource bids	Existing	SIBR	Allow EDAM LSE SC to submit non-participating load resource bids modeled with up to 10 segments monotonically decreasing for EDAM BAAs, same as demand resource bids for ISO BAAs Note: The Participating Load in the CAISO Markets, like Generation by submitting Supply Bids when offering Curtailable Demand and as non-Participating Load by submitting Demand Bids, are to be consumed in the Day-Ahead Market only	
10	EDAM-BRQ-11022	Inter-SC Trades shall not apply to EDAM	Core	SIBR	EDAM Entity SC, EDAM LSE SC EDAM Resource SC and other SCs in the Extended Day-Ahead Market may not submit Inter-SC Trades for transactions outside the CAISO BAA, and Section 28 will not apply to the Extended Day Ahead Market Notes: Market will continue support Inter-SC trades in CAISO BAA This rule is consistent with the EDAM tariff; however, the prohibition remains under review and may be removed from the tariff prior to implementation.	

Transfer Definition Template

- A new template used to register Firm, Conditional Firm, and NITS transmission as Transfer System Resources, System Resources, Contract Rights (CRNs), and Intertie Transmission Constraints. Resembles GRDT and IRDT.

A	B	C	D	E	F	G
1	Definitions and Business Rules					
2						
3						
4	TSR - Transfer System Resource					
5	Column Name	Column Code	Unit	Definition	Can be Null?	Business Rule
6	Resource ID	RES_ID	text	EDAM transfer resource ID	N	- Name convention: FROM_BAA underscore TIE_ID underscore TO_BAA underscore IMPORT/EXPORT underscore free text (up to 6 characters) without spaces.
7	Scheduling Coordinator	SC	text	The Scheduling Coordinator for the TSR	N	
8	Maximum Capacity	MAX_SCH_QTY	number	Maximum scheduling capacity of the TSR	N	- Whole MW amount
9	Intertie ID	TIE_ID	text	The associated intertie ID, where the EIM Entity for the relevant EIM BAA has made transmission rights available for scheduling Energy Transfers from/to the other EIM BAA or the CISO.	N	- This TIE_ID must match a TIE_ID defined in TIE tab. - Cannot be a meter submission tie only
10	Balancing Authority Area From Side	FROM_BAA	text	The Balancing Authority Area which is the responsible entity that integrates resource plans ahead of time, maintains load-interchange-generation balance within a Balancing Authority Area, and supports interconnection frequency in real time.	N	- Must be EDAM BAA
11	Balancing Authority Area To Side	TO_BAA	text	The Balancing Authority Area which has Interchange Schedule with From Side Balancing Authority Area	N	- Must be EDAM BAA
12	Flow Direction Flag	IMPORT/EXPORT	I/E	The flag indicates the direction of energy flows, with regard to FROM_BAA. A pair of ETSR resources are usually created, including one Import Intertie (ITIE) and one Export Intertie (ETIE).	N	- Can only be I or E.
13	Certified for RSE	CERT_RSE_YN	Y/N	The flag indicates if the TSR is eligible for RSE	N	
14	Tag Flag	TAG_YN	Y/N	The flag indicates whether the FROM entity is responsible for base schedule.	N	- Y means FROM_BAA is responsible for tagging; - N means TO_BAA is responsible for tagging; - Both BAAs must coordinate and agree. If needed, ISO can verify with TO BAA.
15	Contract rights	CRN_YN	Y/N	The flag indicates whether the TSR has contract rights	Y	- If Y, then the resource must also exist on the CRN tab
16	Paired ETSR Resource ID	MIRROR_ETSR	text	Paired EIM transfer resource ID	N	- Name convention: TO_BAA underscore TIE_ID underscore FROM_BAA underscore IMPORT/EXPORT underscore free text (up to 6 characters), without spaces, where IMPORT/EXPORT is opposite direction from its corresponding ETSR.
17	Note	NOTE	text	Additional information	Y	
18						
19	SR - System Resource					
20	Column Name	Column Code	Unit	Definition	Can be Null?	Business Rule
21	Resource ID	RES_ID	text	System resource ID used for contract rights Between EDAM BAA and non-EDAM BAA	N	- Name convention: FROM_BAA underscore TIE_ID underscore TO_BAA underscore I/E underscore free text (up to 6 characters), without spaces.
22	TIE_ID	TIE_ID	text	Intertie ID used to schedule SR	N	- Must be a intertie between an EDAM BAA and a non-EDAM BAA.
				The location where the interchange schedules are managed to.		- Scheduling Points are associated with intertie names, which are not the same:
<div> <div> <div>Revision History</div> <div>Definitions</div> <div>TSR</div> <div>SR</div> <div>CRN</div> <div>ITC</div> <div>+</div> </div> <div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> </div>						

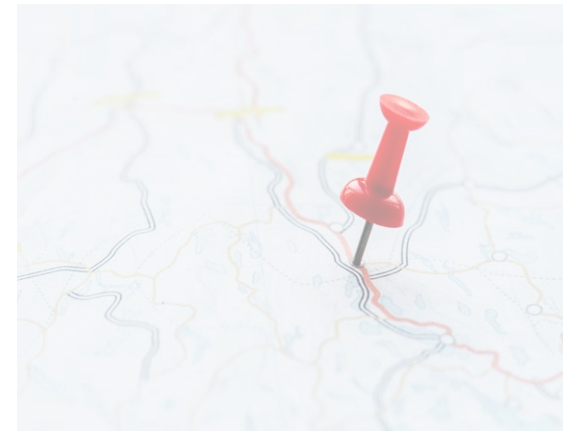
CAISO EDAM Questions Log

	A	B	G	H	I	J	K	L	M	N	O	P
1						CAISO Question Log						
2												
3	#	Dept.	Section	Track	PAC Question	By	Status	Sub	Del	CAISO Closed	Res	From
208	209	PacT Preschedule		T3 Resource Config	5. I would recommend a Description column. There is a notes column, but why not just call it out as its own column. This could be useful for reservations with very similar attributes to one another or perhaps resales may be a little confusing if we're only listing the SC for it.	John Schaffroth	1 - New	6-May-24	6-May-24			
209	210	PacT Preschedule		T3 Resource Config	6. A GEN_LOAD column (or similar, maybe one for each) so the Entity can identify which source or sink is connected to which transmission reservations. I would think both CAISO and PAC need this called out.	John Schaffroth	1 - New	6-May-24	6-May-24			
210	211	PacT Preschedule		T3 Resource Config	7. And a time horizon column(s): a. Need to have Start and End times columns. b. And, not sure if PAC has these, but for contracts that are only live/active (not sure the term) for certain months of the year, we might want a column that specifies the timing of the reservations (eg. April 1 – Aug 30, or similar). c. Or, again not sure if PAC has these but a future Entity might, another column for if ownership or billing etc is alternates between months. I know ATF folks do this for end-of-hour meter actuals but some entities might have gen contracts like this.	John Schaffroth	1 - New	6-May-24	6-May-24			
217	218	ESM DA		T4 Int & Test	Can the CAISO please explain what default distribution factors are and why they are based on Pmax for solar and wind resources? Later in the BRS, specifically in DAME-BRQ-04210, the distribution factors are based on wind and solar forecasts, which is consistent with the technical description from the DAME policy development. Below are screenshots from the Draft Technical Description.	Vijay Singh	1 - New	29-May-24	29-May-24			
218	219	ESM DA		T4 Int & Test	DAME-BRQ-01160 Is the surplus zone set to the EDAM BAA or can there be multiple surplus zones in an EDAM BAA? If multiple, can the CAISO explain why a EDAM BAA would need multiple surplus zones. I would also find it useful to hear a full explanation of surplus zones and IRU/IRD surplus variables.	Vijay Singh	1 - New	29-May-24	29-May-24			
219	220	ESM DA		T4 Int & Test	DAME-BRQ-04004 In policy discussions, I remember the CAISO explaining they will add transmission constraints into the deployment scenario incrementally as they did with the EBR deployment scenario. Is that still the CAISO's plan?	Vijay Singh	1 - New	29-May-24	29-May-24			

Status Update

Where We Are Now

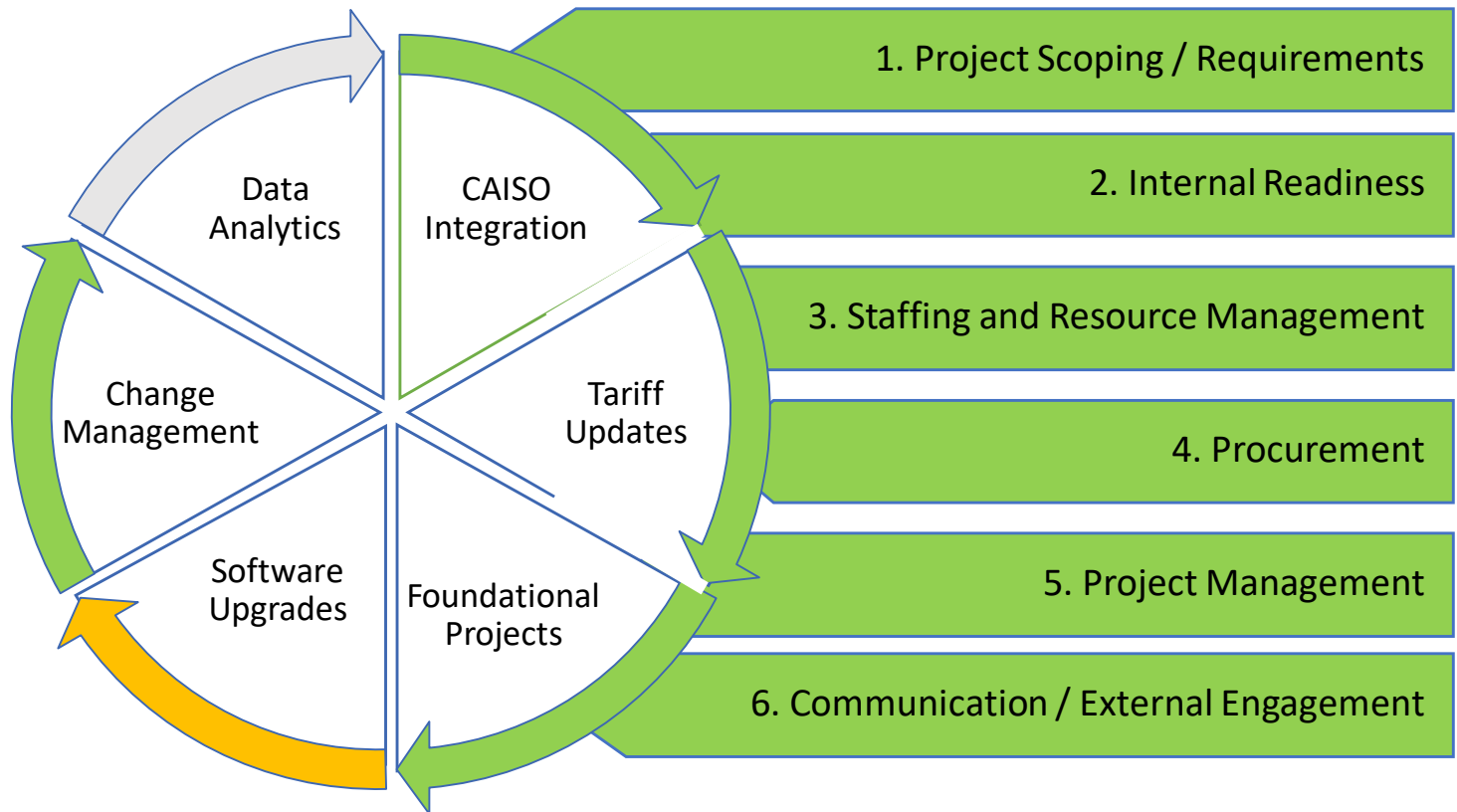
- Map and document all systems, interactions and data flows, ownership
- Gather Test Cases / Scripts / Demo
- Finalize vendor scopes and contracts
- Work on foundational projects
- Team fully stood up
- Collaborate with CAISO/BANC



Where We Are Going

- Fully engage in all tracks with CAISO
- Detailed workshops with individual groups to assess operational impact, identify risks/issues
- Sort out roles and responsibilities
- Map out new EDAM system map & data flows
- Map out ideal state process flows
- Develop change management and training needs

Overall Project Health



Questions?

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