



Sandia Infrastructure Investment Planning (SIIP) Process

Presented by:

Christopher Nesbit

Jennifer Gonzales

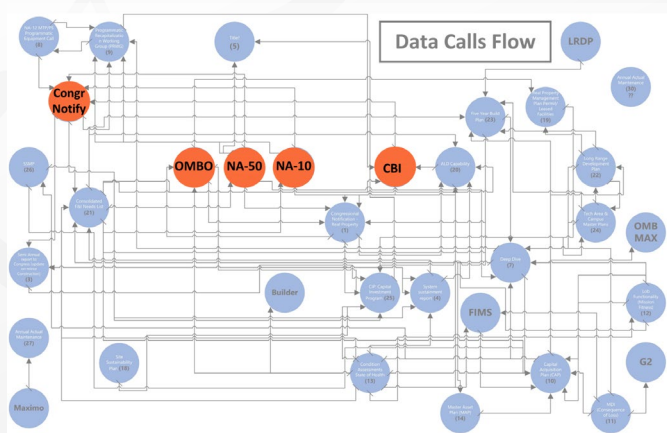


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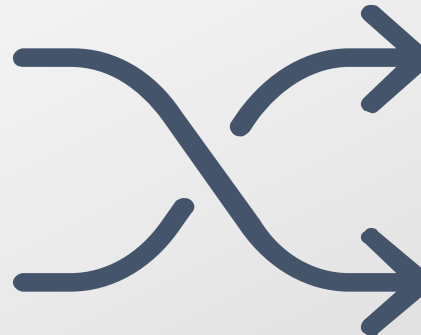
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Inception of SIIP

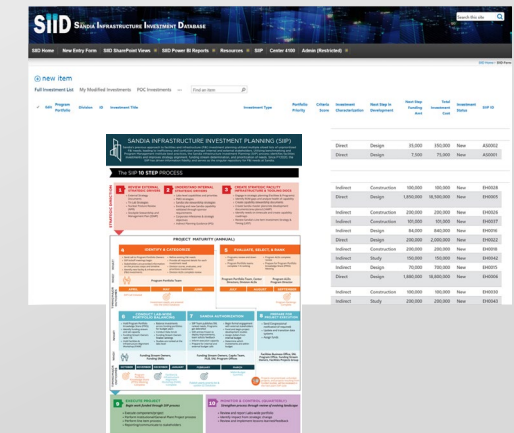
ISSUES



FOCUS AREA



RESULTS



- Lack of corporate planning process and cohesive investment strategy
- Ad hoc and siloed data call processes (30+ databases)
- Prioritization is fragmented across process ownership
- Information is inconsistent due to multiple databases
- Inefficiencies and confusion amongst internal and external customers
- Perception of funding “shopping”

1

Sandia Infrastructure Investment Planning (SIIP) Process

an approach for how Sandia identifies its F&I investment needs to obtain funding

2

“One Database”

a single source of truth for data related to Sandia’s F&I investment needs

- One Database
- Prioritization process including informed funding decisions
- Input from multiple lenses
- Lab-wide Portfolio Balancing
- Better alignment of F&I needs to funding sources
- Documented direction on funding sources use aligned to CAS
- Continuous feedback and improvement

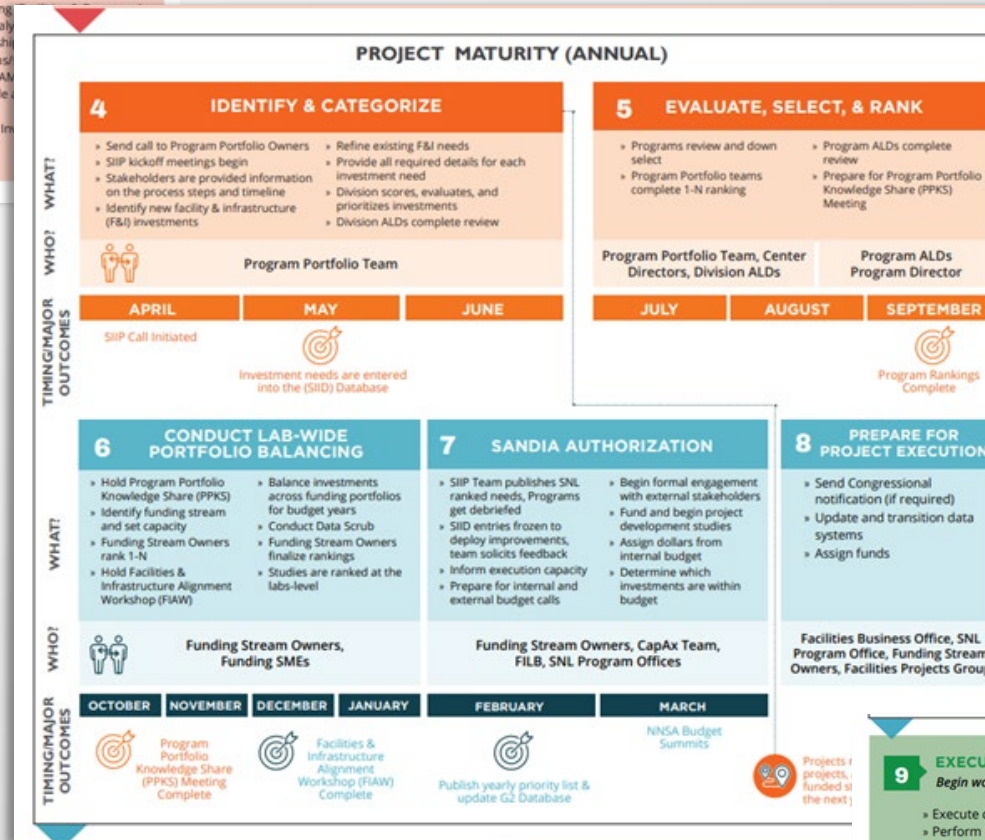


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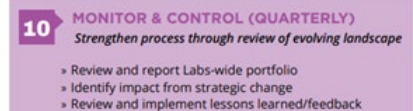
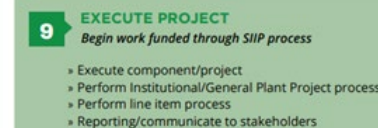
SIIP 10 Step Process

Annual Process



Occasional
(3-5 years)

Continuous
(during year)

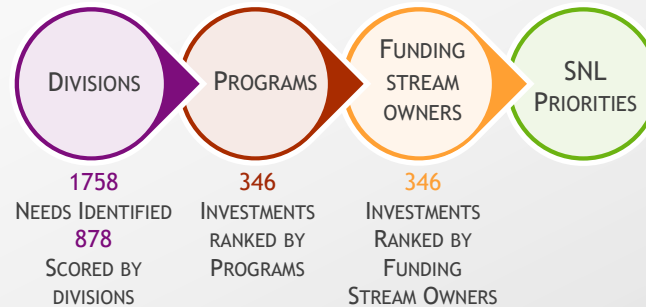
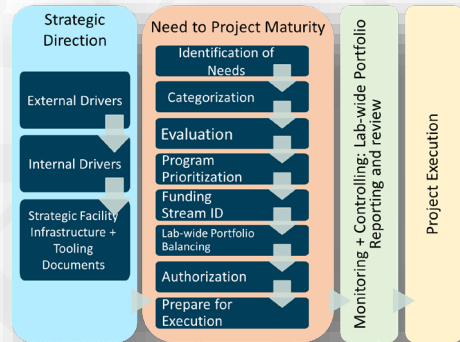




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Annual process

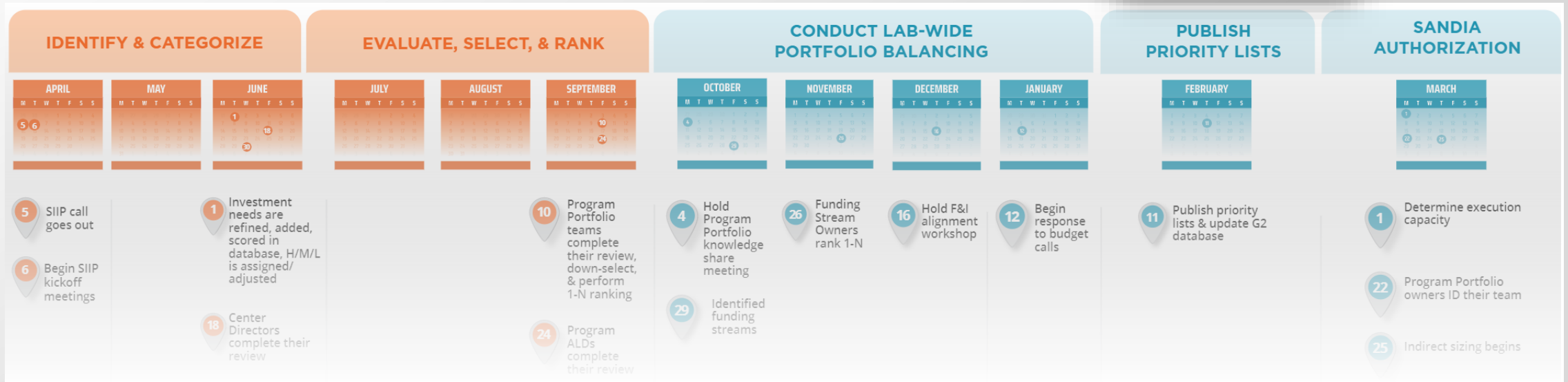


Sandia Infrastructure Investment Planning (SIIP) Published List FY23 Indirect/FY24 Direct

Final listing of FY23 indirect and FY24 direct infrastructure investment needs

Projects will be executed as funding is available

Executive Summary
In April 2021 the second iteration of the SIIP process was initiated to prioritize facility and infrastructure (F&I) investment needs for FY23 (indirect) and FY24 (direct) and beyond. Sandia's previous approach to SIIP investment planning utilized multiple closed lists of unranked F&I needs, leading to inefficiency and confusion amongst internal and external stakeholders. Utilizing benchmarking and Program Management Institution best practices, the Sandia Infrastructure Investment Planning (SIIP) process identifies facility investments and requires strategic alignment, funding stream identification, and prioritization of needs. Since FY2021 the SIIP has done information fidelity and serves as the singular repository for F&I needs at Sandia. The lab-wide team used and prioritized investment needs through the lenses of Divisions, Programs, and Funding Stream owners. The following priority lists are to be used to respond to internal and external budget calls and to facilitate consistent communication to our sponsors.

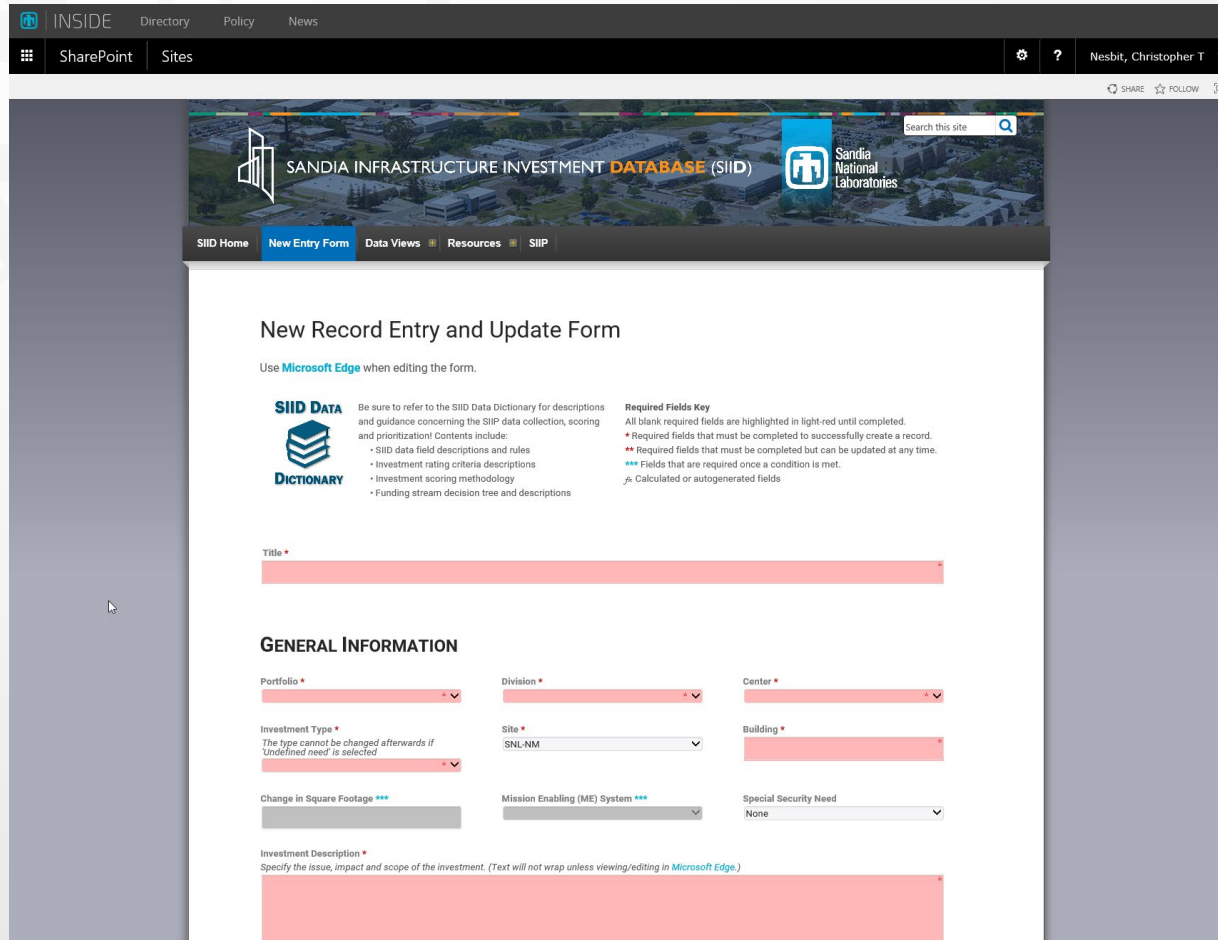




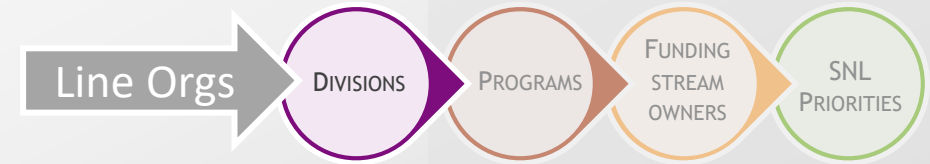
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SIID entry data collection



The screenshot shows the Sandia Infrastructure Investment Database (SIID) web portal. The header includes navigation links like 'INSIDE', 'Directory', 'Policy', 'News', 'SharePoint', and 'Sites'. The main content area is titled 'SANDIA INFRASTRUCTURE INVESTMENT DATABASE (SIID)' and features a 'New Record Entry and Update Form'. A sidebar on the left provides links to 'SIID Home', 'New Entry Form', 'Data Views', 'Resources', and 'SIIP'. The form itself is titled 'New Record Entry and Update Form' and includes a 'GENERAL INFORMATION' section with fields for Portfolio, Division, Center, Investment Type, Site, Building, Change in Square Footage, Mission Enabling (ME) System, and Special Security Need. A 'Required Fields Key' explains the color coding: light red for required fields, light blue for fields that can be updated, and light green for calculated or autogenerated fields. The form also includes a 'SIID DATA DICTIONARY' link and a 'Use Microsoft Edge when editing the form' note.



- Web-based intake portal and data repository
- Title, Portfolio, Division, Center, Investment type, location
- Investment description (Issue, Impact, Scope)
- Risk to Mission Without Investment
- Requirement drivers
- Investment Requestor, Manager, and POCs
- TPC amount, estimate class level, date of estimate, and need by date.
- Initial Funding Stream and Alternate



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SIID criteria evaluation

RATINGS & RANKINGS

EVALUATION CRITERIA RATINGS **

Criteria that do not apply to the selected Investment Type are colored in grey and disabled. Refer to the [SIID Data Dictionary](#) for more info.

	None	Very Low	Low	Moderate	High	Very High
Risk to Mission (RSK)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Environment, Safety & Health (ESH)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunity (OPP)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Uniqueness (UNQ)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Site Development Plans (SDP)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Facility Operations (FAC)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Space Utilization (UTZ)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Savings Cost/Benefit (SAV)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deferred Maint Cost/Benefit (DM)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

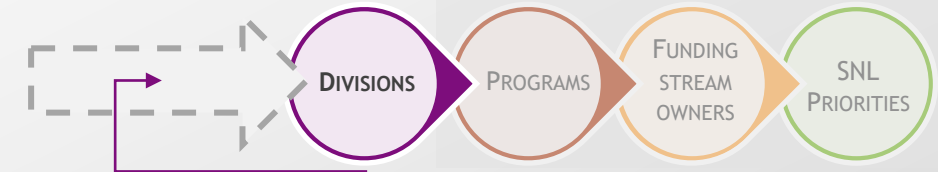
Score γ Score Rating γ

Very low	Low	Moderate	High	Very high
< 0.20	≥ 0.20	≥ 0.40	≥ 0.60	≥ 0.80

Note: Score and Score Rating

Rating and Score

Criteria/Evaluation Factor	Description	Very Low	Low	Moderate	High	Very High
Risk to Mission (RSK)						
Mission effectiveness and efficiency	Likelihood that the asset(s) will cause the mission to not effectively and efficiently achieve the activities performed in it through BPA47 impact to reduction in margin(s) of mission performance resulting from asset(s) problem/failure	No reduction in performance margin(s)	Very low to moderate reduction in performance margin(s)	Moderate to very high reduction in performance margin(s)	No remaining margin in performance margin(s)	Total failure in performance margin(s)
Mission failure	Very low likelihood of mission failure due to the asset(s) < 10% probability of mission failure due to asset(s) condition or utilization	Low likelihood of mission failure due to the asset(s) 10% – 20% probability of mission failure due to asset(s) condition or utilization	Moderate likelihood of mission failure due to the asset(s) 20% – 75% probability of mission failure due to asset(s) condition or utilization	High likelihood of mission failure due to the asset(s) 75% – 90% probability of mission failure due to asset(s) condition or utilization	Very high likelihood of mission failure due to the asset(s) > 90% probability of mission failure due to asset(s) condition or utilization	
Urgency	Urgency or length of time until the risk and/or impact to the mission resulting from the asset(s) problem/failure is unacceptable impact to portion of gap closure or risk reduction to asset(s)	> 10 years until risk or impact becomes unacceptable	5 – 10 years until risk or impact becomes unacceptable	2 – 5 years until risk or impact becomes unacceptable	< 1 year until risk or impact becomes unacceptable	
Risk reduction	Likelihood of security issues resulting from asset(s) problem/failure	Low likelihood of minor issue	Very low likelihood of serious issue, moderate likelihood of minor issue	Low likelihood of serious issue, high likelihood of minor issue	Moderate likelihood of serious issue, very high likelihood of minor issue	
Environment, Safety & Health (ESH)						
ESH issues	Likelihood of ESH issues (or incidents) resulting from asset(s) problem/failure	Very low likelihood of serious issue, low likelihood of minor issue	Low likelihood of serious issue, moderate likelihood of minor issue	Moderate likelihood of serious issue, high likelihood of minor issue	High likelihood of serious issue, very high likelihood of minor issue	Very high likelihood of serious issue
ESH mandate gap/deficiency	Correction of a gap/deficiency in meeting a regulatory mandate	Small correction of minor gap/deficiency	Significant correction of minor gap/deficiency	Complete correction of minor gap/deficiency, or a small correction of major gap/deficiency	Significant correction of major gap/deficiency	Complete correction of major gap/deficiency
Opportunity (OPP)						
Impact of realigning opportunity	Impact of the benefits or opportunities from the investment to its associated program(s) or stakeholders	No long-term benefits, minor short-term benefits	Minor long-term benefits, moderate short-term benefits	Moderate long-term benefits, significant short-term benefits	Significant long-term benefits, major short-term benefits	Major long-term benefits (short-term benefits are not considered to ever be "Very High")
Scope of opportunity	Scope of impacts and/or emerging needs promoted by the investment across programs	No scope of impacts/emerging needs are satisfied	Significant scope of impacts/emerging needs are satisfied	Moderate scope of impacts/emerging needs are satisfied	Significant scope of impacts/emerging needs are satisfied	Major scope of impacts/emerging needs are satisfied
Uniqueness (UNQ)						
Implementation of alternatives	Difficulty of replacing the function(s) of the asset(s) with a viable alternative should it be permanently lost for any reason	Alternatives are available within same Division, Program or Facility, other sites do not need to be considered	Reasonable. Alternatives are available at Sandia but require cross-organizational negotiation other sites do not need to be considered	Challenging. Alternatives may be available at Sandia with significant effort and/or negotiation, fairly available at other sites	Difficult. Alternatives are unlikely to be available, unavailable at Sandia, may be available from other sites	Extremely difficult or impossible. Alternatives are not available at Sandia or other sites
Uniqueness or specialization	Level of uniqueness or specialization of the asset(s)	Very low. Little to no specialization; not unique	Low. Minimal specialization; generally not considered unique	Moderate. Somewhat common specialization; fairly unique	High. Rare specialization; highly unique	Very high. One-of-a-kind specialization; unique to Sandia
Site Development Plans (SDP)						
Capacity and/or resiliency	Capacity and/or resiliency that benefits the utility and/or infrastructure of multiple buildings as a result of the investment	No capacity and/or resiliency benefits	Minimal capacity and/or resiliency benefits	Moderate capacity and/or resiliency benefits	Significant capacity and/or resiliency benefits	Major capacity and/or resiliency benefits
Part of larger site development strategies	Importance of the investment as part of a larger site development strategy (i.e., NA-50 MAP Area Plan, Site-Wide Master Plan, Site Sustainability Plan)	No relationship to the NA-50 MAP Area Plan and/or the Site-Wide Master Plan and/or Site Sustainability Plan	Minimal importance to the NA-50 MAP Area Plan and/or the Site-Wide Master Plan and/or Site Sustainability Plan	Significant importance to the NA-50 MAP Area Plan and/or the Site-Wide Master Plan and/or Site Sustainability Plan	Critical importance to the NA-50 MAP Area Plan and/or the Site-Wide Master Plan and/or Site Sustainability Plan	Major importance to the NA-50 MAP Area Plan and/or the Site-Wide Master Plan and/or Site Sustainability Plan



- 9 Scoring Criteria (Risk, Safety, Opportunity, Uniqueness, Site Development, Facility Ops, Space Utilization, Fac Ops Savings, DM Savings)
- Notes for criteria scoring captured during intake and Division review.
- Scoring value is normalized, 0.00 – 1.00 scale, project specific – not all criteria may apply
- Criteria scoring based on definitions, but may have variance – Used to initiate conversation, not yet determinant.

Very low	Low	Moderate	High	Very high
< 0.20	≥ 0.20	≥ 0.40	≥ 0.60	≥ 0.80



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Need vetting and prioritization



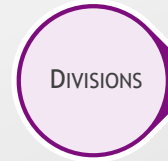
- **Identifies** Wants vs. Needs
- SME need detailed intake knowledge
- Down-selects entries to operational impacts (VH-VL)
- 1-N all needs (operations)



- **Integrates** Division priorities by project type
- Program integration understanding
- Down-selects entries (further) to risks and deliverable impacts
- 1-N (mission)



- **Balances** need funding requests to funding portfolios
- Reviews and confirms need match to funding sponsors
- Proposes funding source rank order based on 1-N priorities



- **Publishes** “Single List” of needs for yearly budget summits
- Down-selected needs specific to budget year
- Ranking within historical funding and over-target priorities

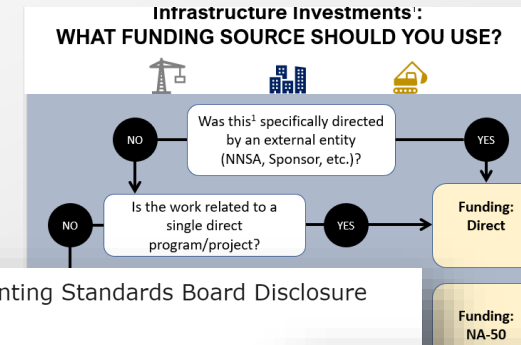


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Funding Identification

- Principled approach to ensure correct funding source is identified
- Funding Decision Tree, Cost Accounting Standards Disclosure Statement, and team of experts determine funding source
- Funding stream owners review, approve and rank investments
- Published list of investments available for funding input
- Requests approved through normal processes
- SIID updated when funding is secured



Cost Accounting Standards Board Disclosure Statement

Cost Accounting Standards
NATIONAL TECHNOLOGY AND ENGINEERING SOLUTIONS OF
COST ACCOUNTING STANDARDS BOARD
DISCLOSURE STATEMENT
REQUIRED BY PUBLIC LAW 100-679
Revision 6, Effective: October 1, 2021

**Sandia Infrastructure Investment
Planning (SIIP) Published List
FY23 Indirect/FY24 Direct**

Final listing of FY23 indirect and FY24 direct infrastructure investment needs

FUNDING STREAMS

Investment Funding Type **

Direct
Indirect

Funding Stream - Option 1 ***

Funding Stream - Option 2

Funding Stream - Final ***

*Entered by SIIP Team or Funding Stream Owner

FUNDING DECISION TREE

The following set of questions are derived from the Funding Decision Tree flowchart found within the Data Dictionary. Completing these questions is optional but highly recommended - particularly for investments with unclear funding streams.

	Yes	No	No Answer
1. Was this specifically directed by an external entity (NNSA, Sponsor, etc.)? If yes, the funding stream is direct funding. If no, go to question 2.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
2. Is the work related to a single direct program/project? If yes, the funding stream is direct funding. If no, go to question 3.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
3. Is this a general purpose program/project? If yes, go to question 4.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

COST & SCHEDULE

Refer to the field definitions and section aid in the [SIIP Data Dictionary](#) for additional information on this section.
(next phase)

	Exploratory Analysis (EA)	Project Development (PD)	Final Design (FD)	Construction (CON)
Project phase funded? **	Y <input type="radio"/> N <input type="radio"/> N/A <input checked="" type="radio"/>	Y <input type="radio"/> N <input checked="" type="radio"/> N/A <input type="radio"/>	Y <input type="radio"/> N <input checked="" type="radio"/>	Y <input type="radio"/> N <input checked="" type="radio"/>



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Scoring, prioritizing, ranking, balancing, publishing



- Division generally down-selects to a Top Needs only list for budget targets
- Program aggregates Division 1-N lists and filters to project type for ranking
- Program down-selects project type list respecting top Divisions' rankings and utilizes criteria score for ties
- Funding sources balance aggregate project types to external criteria (if available) and historical funding
- Planning publishes year end list for budget conferences



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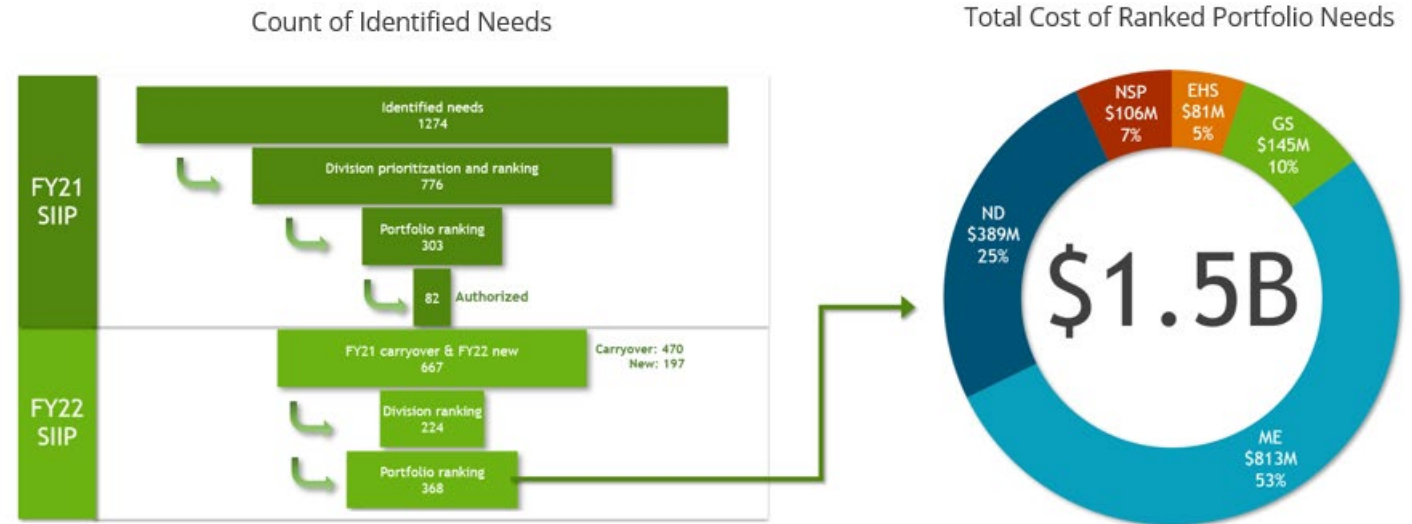
Where we are, where we're going

Where We Are

- Significant data collection in previous iterations
- Substantial efforts to score and rank needs

Where We are Going

- Further refinement of existing investment needs
- Slotting in emerging needs
- Adjust ranking in response to changes in program strategic direction
- Balancing long range planning with shorter term needs (at the right level of effort)
- Continuous engagement with external sponsors to communicate gaps/needs



Figures exclude Line Item scale Needs, prioritized in the Sandia Infrastructure Investment Strategy 2040 process

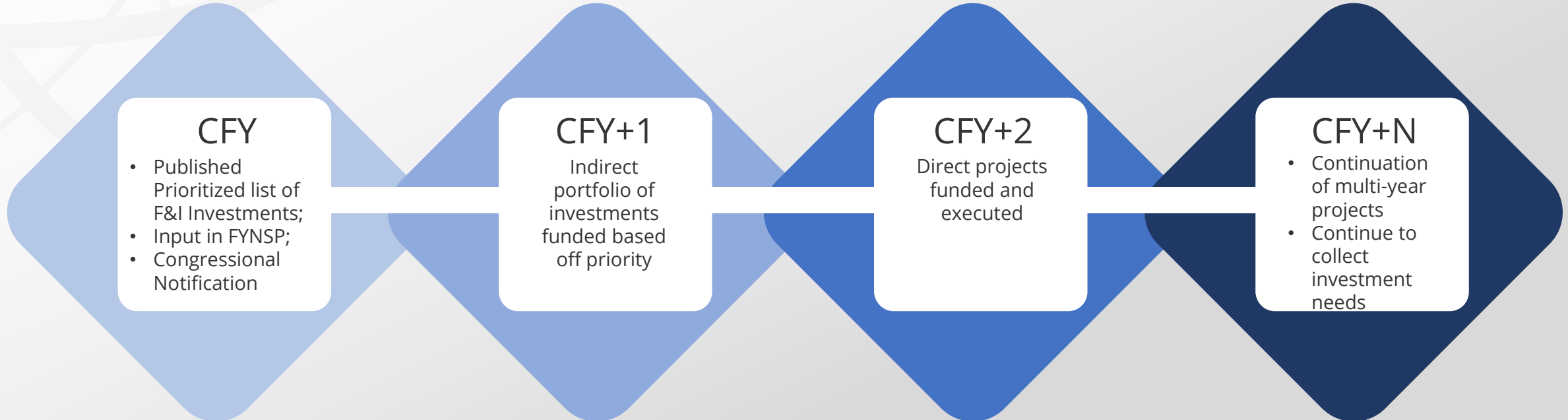
In Progress: Set priorities for FY24 Indirect / FY25 Direct Investment Needs



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What happens next?





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Questions?

Chris Nesbit, ctnesbi@sandia.gov

Jennifer Gonzales, jenngon@sandia.gov