

## Proposed PFA Advisory Committee Review and Ranking Process - *OCRF Process*

*Goal: Remove bias that might occur because of the variance in each of our individual scoring habits*

### Steps:

#### 1. Assign Reviews:

- Committee members are randomly assigned proposals to review.
- The voting Committee is divided into three teams: two teams of 2 members each and one team of 3 members.

#### 2. Individual Scoring:

##### ○ ~~OCRF Process~~

- ~~▪ Each member scores proposals on a scale of 0–45 points, based on the provided scoring matrix.~~
- ~~▪ Scores are sorted from highest to lowest, and a rank is assigned to each proposal:~~

~~▪ 45 points = Rank 1 (highest rank).~~

~~▪ 0 points = Lowest rank (e.g., Rank 24 if 24 proposals are reviewed).~~

~~▪ For tied scores, assign the same rank and continue the sequence:~~

~~▪ Example:~~

~~1. Proposal A: 40 points = Rank 1~~

~~2. Proposal B: 40 points = Rank 1~~

~~3. Proposal C: 40 points = Rank 1~~

~~4. Proposal D: 30 points = Rank 4~~

##### ○ Proposed PFA Grants Method: **Average Scores prior to Z score Normalization**

- Each member scores proposals on a scale of 0–45 points, based on the provided scoring matrix.
- Simply average the scores within each team.
- See table below for example:

Team 1			
Proposal	Member 1 Score	Member 2 Score	Raw Score (Average)
Proposal 1	40	35	$(40 + 35) / 2 = 37.5$
Proposal 2	30	25	$(30 + 25) / 2 = 27.5$
Proposal 3	20	15	$(20 + 15) / 2 = 17.5$

### 3. Team Ranking/Score Normalization:

#### ○ **OCRF process:**

- Within each team, individual member rankings for a proposal are added together to determine the final team ranking for that proposal.

- Example:

- Proposal A:

- 1. Member 1 ranking = 2

- 2. Member 2 ranking = 3

- Final team ranking = 2 + 3 = **5 for Proposal A**

#### ○ **Proposed PFA Grants Method: Z-Score Normalization**

- Process:

1. For each team, calculate the mean and standard deviation of their scores.
2. Convert raw scores into Z-scores using:
  - $Z = (X - \text{Mean}) / \text{Standard Deviation}$
3. Combine Z-scores into a master list. Higher Z-scores indicate higher-priority proposals.

#### ○ **Z-Score Detailed Example – See Last Page**

### 4. Master Ranking:

- All team rankings are compiled into a master spreadsheet.
- Proposals are sorted by final rankings, from lowest (best rank) to highest.

### 5. Funding Line:

- A funding line is drawn at the point where the total authorized expenditure is reached and provided to the Committee for deliberation at the in-person Committee meeting.
- **Tie Breakers:** If tied scores/rankings impact the funding line, outline a clear process for resolving ties (e.g., further discussion, re-scoring, or prioritizing based on specific criteria like feasibility or ecological impact).

## Z-Score Detailed Example:

### Scenario

We have three teams scoring proposals on a 0–45 point scale:

- **Team 1:** 2 members review 5 proposals.
- **Team 2:** 2 members review 5 proposals.
- **Team 3:** 3 members review 7 proposals.

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### Step 1: Raw Scores

Here are the raw scores from each team:

Team 1	Score	Team 2	Score	Team 3	Score
Proposal A	40	Proposal F	45	Proposal K	40
Proposal B	35	Proposal G	40	Proposal L	37
Proposal C	30	Proposal H	35	Proposal M	34
Proposal D	25	Proposal I	30	Proposal N	31
Proposal E	20	Proposal J	25	Proposal O	28
				Proposal P	25
				Proposal Q	22

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### Step 2: Calculate Mean and Standard Deviation for Each Team

Team	Mean ( $\mu$ )	Standard Deviation ( $\sigma$ )
Team 1	30	7.91
Team 2	35	7.91
Team 3	31	6.36

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### Step 3: Calculate Z-Scores

Formula:

$$Z=(X-\mu)/\sigma$$

Where:

- $X$  = raw score
- $\mu$  = mean of the team
- $\sigma$  = standard deviation of the team

#### Team 1 Z-Scores:

- Proposal A:  $Z=(40-30)/7.91= 1.26$
- Proposal B:  $Z=(35-30)/7.91= 0.63$
- Proposal C:  $Z=(30-30)/7.91= 0.00$
- Proposal D:  $Z=(25-30)/7.91= (-0.63)$
- Proposal E:  $Z=(20-30)/7.91= (-1.26)$

#### Team 2 Z-Scores:

- Proposal F:  $Z=(45-35)/7.91= 1.26$
- Proposal G:  $Z=(40-35)/7.91= 0.63$
- Proposal H:  $Z=(35-35)/7.91= 0.00$
- Proposal I:  $Z=(30-35)/7.91= (-0.63)$
- Proposal J:  $Z=(25-35)/7.91= (-1.26)$

#### Team 3 Z-Scores:

- Proposal K:  $Z=(40-31)/6.36= 1.42$
  - Proposal L:  $Z=(37-31)/6.36= 0.94$
  - Proposal M:  $Z=(34-31)/6.36= 0.47$
  - Proposal N:  $Z=(31-31)/6.36= 0.00$
  - Proposal O:  $Z=(28-31)/6.36= (-0.47)$
  - Proposal P:  $Z=(25-31)/6.36= (-0.94)$
  - Proposal Q:  $Z=(22-31)/6.36= (-1.42)$
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## Step 4: Combine Z-Scores Across Teams

Now that all scores are normalized, we can combine them into a single list for ranking.

Proposal	Z-Score	Rank
Proposal K	1.42	1
Proposal F	1.26	2
Proposal A	1.26	2
Proposal L	0.94	4
Proposal G	0.63	5
Proposal B	0.63	5
Proposal M	0.47	7
Proposal H	0.00	8
Proposal C	0.00	8
Proposal N	0.00	8
Proposal O	-0.47	11
Proposal D	-0.63	12
Proposal I	-0.63	12
Proposal P	-0.94	14
Proposal E	-1.26	15
Proposal J	-1.26	15
Proposal Q	-1.42	17

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### Benefits of Z-Scoring:

1. **Standardized Scores:** Variations in scoring tendencies between teams are normalized.
2. **Fair Comparison:** Proposals are ranked based on their relative performance within their team, not the raw score alone.
3. **Unified Master Ranking:** Can easily combine proposals into a single ranked list.