

# Computing Contributions Board

## Meeting

**Agenda:** <https://indico.fnal.gov/event/52519/>

# Summary of Requirements published to CCB



from “210900-CCB-2022-Requests” and reference therein

## 2. REQUEST: The DUNE Capacity requirements 2022

The 2022 requirements are documented in

<https://docs.dunescience.org/cgi-bin/sso/ShowDocument?docid=23419>

The 2022 year is taken to be 1-April 2022 – 31 March 2023 (these are just arbitrary target dates).

Numbers taken from that document are reproduced in the Table below. These are split into three classifications of sites: FNAL, CERN and Other-sites

- The CPU split is done as 25% FNAL and 75% CERN+Other-sites.
- I have then assigned 500 cores arbitrarily to CERN, but let me know if CERN wishes to provide more).
- The Disk and Tape split is bespoke and worked out by the management.

|           | <b>Total</b> | <b>FNAL</b> | <b>CERN</b> | <b>Other-sites</b> |
|-----------|--------------|-------------|-------------|--------------------|
| CPU cores | <b>7780</b>  | 1945        | 500         | 5335               |
| Disk (PB) | <b>27.3</b>  | 7.6         | 1.6         | 18.1               |
| Tape (PB) | <b>33.4</b>  | 21.8        | 6.5         | 5.1                |

# Pledges so far: all

|                                     |                     | 2021        |             |           | 2022         |               |             |
|-------------------------------------|---------------------|-------------|-------------|-----------|--------------|---------------|-------------|
|                                     |                     | CPU Cores)  | Disk (PB)   | Tape (PB) | CPU Cores)   | Disk (PB) [2] | Tape (PB)   |
| <b>Total DUNE Requirements [1]</b>  |                     | <b>6594</b> | <b>6</b>    | <b>9</b>  |              |               |             |
| <b>DUNE</b>                         |                     | 6594        | 2.2         | 24.2      | <b>7780</b>  | <b>27.3</b>   | <b>33.4</b> |
|                                     |                     |             |             |           | 7780         | 27.3          | 33.4        |
| <b>DUNE Requirements at FNAL</b>    |                     | <b>1650</b> | <b>6</b>    | <b>9</b>  |              |               |             |
| <b>FNAL</b>                         |                     | 3310        | 2.2         | 24.2      | <b>1945</b>  | <b>7.6</b>    | <b>21.8</b> |
| <b>DUNE Requirments at CERN</b>     |                     | <b>1650</b> | <b>6</b>    | <b>9</b>  |              |               |             |
| <b>CERN</b>                         |                     | 3310        | 2.2         | 24.2      | <b>500</b>   | <b>1.6</b>    | <b>6.5</b>  |
| <b>DUNE Requirments other sites</b> |                     |             |             |           |              |               |             |
| <b>Total request</b>                |                     | <b>4950</b> | <b>15</b>   | <b>12</b> | <b>5335</b>  | <b>18.1</b>   | <b>5.1</b>  |
| <b>Actual Pledges:</b>              |                     |             |             |           |              |               |             |
| <b>BNL</b>                          | BNL                 | 100         | 0.5         |           | 100          | 0.5           |             |
| <b>USA - other</b>                  | (OSG opportunistic) | 1150        |             |           | 1150         | 0             | 0           |
| <b>UK</b>                           | GridPP              | 1000        | 4           | 3         | 1000         | 4             | 3.1         |
| <b>FR</b>                           | CC-IN2P3            | 310         | 0.5         | 2         | 250          | 0.5           | 2           |
| <b>ES</b>                           | PIC Tier-1          | 500         | 0.5         |           | 512          | 0.72          |             |
| <b>NL</b>                           | NL/LHC Tier-1       | 696         | 1.9         |           | 788          | 1.8           | [3]         |
| <b>CZ</b>                           | CZ-Prague-T2        | 1560        | 0.3         |           | 2400         | 1             | [4]         |
| <b>IT</b>                           |                     |             |             |           |              |               |             |
| <b>CH</b>                           |                     | 200         | 0.2         |           |              |               |             |
| <b>BR</b>                           | CBPF                | 100         | 0           |           |              |               |             |
| <b>IN</b>                           | Tata                | 450         | 0.75        |           | 450          | 0.75          |             |
| <b>RU</b>                           | JINR                |             |             |           | 1000         | 0.5           |             |
| <b>Total pledge</b>                 |                     | <b>6066</b> | <b>8.65</b> | <b>5</b>  | <b>7650</b>  | <b>9.77</b>   | <b>5.1</b>  |
| <b>Shortfall</b>                    |                     |             |             |           | <b>-2315</b> | <b>8.33</b>   | <b>0</b>    |

# Pledges so far: Other countries

| DUNE Requirements other sites |                     |             |             |           |              |             |            |
|-------------------------------|---------------------|-------------|-------------|-----------|--------------|-------------|------------|
| <b>Total request</b>          |                     | <b>4950</b> | <b>15</b>   | <b>12</b> | <b>5335</b>  | <b>18.1</b> | <b>5.1</b> |
| <b>Actual Pledges:</b>        |                     |             |             |           |              |             |            |
| <b>BNL</b>                    | BNL                 | 100         | 0.5         |           | 100          | 0.5         |            |
| <b>USA - other</b>            | (OSG opportunistic) | 1150        |             |           | 1150         | 0           | 0          |
| <b>UK</b>                     | GridPP              | 1000        | 4           | 3         | 1000         | 4           | 3.1        |
| <b>FR</b>                     | CC-IN2P3            | 310         | 0.5         | 2         | 250          | 0.5         | 2          |
| <b>ES</b>                     | PIC Tier-1          | 500         | 0.5         |           | 512          | 0.72        |            |
| <b>NL</b>                     | NL/LHC Tier-1       | 696         | 1.9         |           | 788          | 1.8         | [3]        |
| <b>CZ</b>                     | CZ-Prague-T2        | 1560        | 0.3         |           | 2400         | 1           | [4]        |
| <b>IT</b>                     |                     |             |             |           |              |             |            |
| <b>CH</b>                     |                     | 200         | 0.2         |           |              |             |            |
| <b>BR</b>                     | CBPF                | 100         | 0           |           |              |             |            |
| <b>IN</b>                     | Tata                | 450         | 0.75        |           | 450          | 0.75        |            |
| <b>RU</b>                     | JINR                |             |             |           | 1000         | 0.5         |            |
| <b>Total pledge</b>           |                     | <b>6066</b> | <b>8.65</b> | <b>5</b>  | <b>7650</b>  | <b>9.77</b> | <b>5.1</b> |
| <b>Shortfall</b>              |                     |             |             |           | <b>-2315</b> | <b>8.33</b> | <b>0</b>   |