|                                      |                 |                  |           | Estimated Cost |
|--------------------------------------|-----------------|------------------|-----------|----------------|
| Management                           | Pre-CD0<br>FTEs | Post-CD0<br>FTEs |           |                |
| Project Manager-Dudek                | 0.07            | 0.60             |           | \$191,043      |
| Project Engineer-Neumeyer            |                 | 0.37             |           | \$112,240      |
| Woolley                              | 0.25            |                  |           | \$75,838       |
| Systems Engineering-Simmons          |                 | 0.37             |           | \$118,343      |
| Project Controls                     |                 | 0.45             |           | \$116,997      |
| TBD-RLMs-Prep for Reviews            |                 | 0.20             |           | \$57,028       |
| Center Stack Conceptual Design       |                 |                  |           |                |
| Heitzenroeder                        | 0.05            | 0.46             |           | \$163,121      |
| Chrzanowski                          | 0.08            | 0.40             |           | \$151,927      |
| Fan                                  | 0.15            | 0.77             |           | \$294,258      |
| Dahlgren                             |                 | 0.69             |           | \$220,694      |
| Avasarala, Srinivas                  | 0.06            | 0.40             |           | \$147,129      |
| Zhang, Han                           | 0.09            | 0.60             |           | \$220,694      |
| Brooks                               |                 | 0.23             |           | \$73,565       |
| Zatz                                 | 0.05            |                  |           | \$15,992       |
| Parsells                             | 0.07            |                  |           | \$22,389       |
| Titus-M&S                            |                 |                  | \$70,000  | \$85,820       |
| Designer-Paul                        |                 | 1.40             |           | \$301,993      |
| Designer-Upcavage                    |                 | 0.80             |           | \$130,050      |
| Designer-TBD                         |                 | 0.36             |           | \$77,655       |
| Designer-TBD                         |                 | 0.26             |           | \$56,084       |
| CS-Diagnostic Elect Engrg            |                 | 0.20             |           | \$60,670       |
| CS-Diagnostic Mech Engrg-Labik       |                 | 0.20             |           | \$57,028       |
| R&D-Meighan                          |                 | 0.17             |           | \$42,604       |
| R&D TechShop                         |                 | 0.25             |           | \$51,461       |
| R&D TechShop                         |                 | 0.25             |           | \$38,998       |
| R&D M&S                              |                 |                  | \$22,500  | \$27,585       |
| TBD-Support Structure Engrg/Analysis |                 | 0.25             |           | \$71,285       |
| TBD-Joint R&D M&S                    |                 |                  | \$120,000 | \$147,120      |
|                                      |                 |                  |           |                |
| Power Systems-Conceptual Design      |                 |                  |           |                |
| Ramakrishnan                         | 0.05            | 0.33             |           | \$115,273      |
| Lawson                               |                 | 0.27             |           | \$81,905       |
| Marsala                              |                 | 0.27             |           | \$81,905       |
| Baker                                |                 | 0.05             |           | \$15,168       |

| Hatcher                                  |                 | 0.02             | \$6,067        |
|--|-----------------|------------------|----------------|
| Design-Jones                             |                 | 0.22             | \$47,456       |
| Design-VanKirk                           |                 | 0.22             | \$47,456       |
|  |                 |                  |                |
| Tech Support-Gibilisco/Carson            |                 | 0.07             | \$14,390       |
| Total Projected CS Upgrade FY2009 Budget |                 |                  | \$3,539,228    |
|  |                 |                  |                |
|  |                 |                  | Estimated Cost |
| ∕lanagement                              | Pre-CD0<br>FTEs | Post-CD0<br>FTEs |                |
| Project Manager-VonHalle                 |                 | 0.19             | \$57,637       |
| Engineering Manager-Tim Stevenson        | 0.05            | 0.19             | \$72,804       |
| Systems Engineering-Simmons              |                 | 0.19             | \$60,771       |
| Project Controls                         |                 | 0.30             | \$77,998       |
| TBD-RLMs-Prep for Reviews                |                 | 0.23             | \$65,582       |
| Beam-Line Relocation                     |                 |                  |                |
| Engineer-TBD-Viola                       |                 | 0.19             | \$54,176       |
| Designer-TBD                             |                 | 0.19             | \$40,985       |
| Services                                 |                 |                  |                |
| Mechanical Engineer-TBD                  |                 | 0.19             | \$54,176       |
| Designer-TBD                             |                 | 0.19             | \$40,985       |
| NBPS                                     |                 |                  |                |
| Edwards                                  |                 | 0.19             | \$49,497       |
| Ramakrishnan                             |                 | 0.19             | \$57,637       |
| Designer-TBD                             |                 | 0.19             | \$40,985       |
| Controls                                 |                 |                  |                |
| Cropper                                  |                 | 0.19             | \$49,497       |
| Rossi                                    |                 | 0.19             | \$39,059       |
| Designer-TBD                             |                 | 0.09             | \$19,414       |

| Duct/Port/TVPS                         |             |      |          |           |
|--|-------------|------|----------|-----------|
| Mechanical Engineer-TBD                |             | 0.46 |          | \$131,164 |
| Designer-TBD                           |             | 0.46 |          | \$99,226  |
|  |             |      |          |           |
| Removals/Relocations/                  |             |      |          |           |
| Mechanical Engineer-TBD-Perry          | 0.05        | 0.37 |          | \$119,758 |
| Designer-TBD                           |             | 0.37 |          | \$92,725  |
|  |             |      |          |           |
| DECON                                  |             |      |          |           |
| Mechanical Engineer-TBD-Gentile        |             | 0.37 |          | \$105,501 |
| Tech Support-TBD                       |             | 0.50 |          | \$72,814  |
| Tech Support-TBD                       |             | 0.50 |          | \$72,814  |
| Tech Support-TBD                       |             | 0.50 |          | \$77,996  |
| Tech Support-TBD                       |             | 0.50 |          | \$77,996  |
| HP Tech                                |             | 0.75 |          | \$174,453 |
| TBD M&S                                |             |      | \$50,000 | \$61,300  |
|  |             |      |          |           |
|  |             |      |          |           |
| Total Projected 2nd NBI Upgrade FY2009 |             |      |          |           |
| Budget                                 | \$1,866,949 |      |          |           |